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STATE DOCUMENTS

1967 - 1968

MONTANA

Perinatal Deaths

FOURTEENTH - FIFTEENTH YEARS OF THE STUDY



MATERNAL AND CHILD WELFARE COMMITTEE

MONTANA MEDICAL ASSOCIATION

WITH

MONTANA STATE DEPARTMENT OF HEALTH



HELENA MONTANA

PERINATAL DEATH STUDY

FORWARD

The following is data collected by the Maternal and Child Welfare Committee of the Montana Medical Association and the State Department of Health.

It represents considerable interest and work by the following members of the Committee:

Lois Hensaker M.D. - Helena, Mont. Chairman
Marvin W. Cameron, M.D. - Dillon
Paul R. Crellin, M.D. - Billings
John A. Curtis, M.D. - Great Falls
Katherine E. Dawson, M.D. - East Helena
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Also, the following State Department of Health Employees were closely involved in tabulating and recording the report:

John C. Wilson, Director
Robert O. Nelson, Statistician
Susanne Pitts, Statistician
Division of Records & Statistics

Sue Manuel & Nellie James, Secretaries
Division of Child Health Services

RELATIVE RISK OF NEONATAL DEATH BY AGE OF MOTHER

<u>Mother's Age</u>	<u>Neonatal Deaths</u>	<u>Rate*</u>	<u>Total</u>	<u>Resident Live Births</u>	
				<u>1967</u>	<u>1968</u>
TOTAL, All Ages	378	1.6	24,079	12,087	11,992
Under 15	2	**	31	18	13
15 - 19	89	2.3	3,886	1,960	1,926
20 - 24	136	1.4	9,488	4,747	4,741
25 - 29	85	1.4	5,899	2,885	3,014
30 - 34	31	1.1	2,848	1,467	1,381
35 - 39	24	1.7	1,393	710	683
40 - 44	9	1.8	502	278	224
45 and over	-	**	31	21	10
Age not stated	2	**	1	1	-

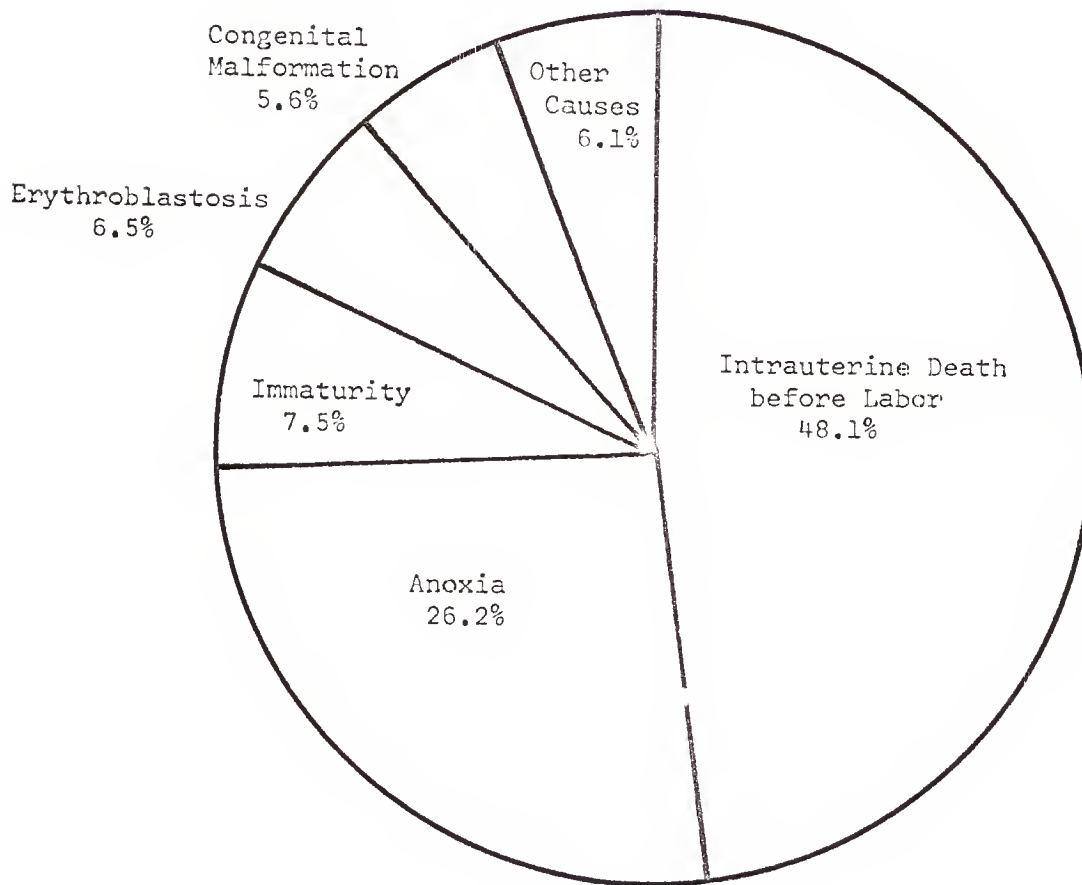
* Deaths per 100 live births

** Not calculated

Neonatal Deaths

<u>Year</u>	<u>Number</u>
1967	204
1968	174

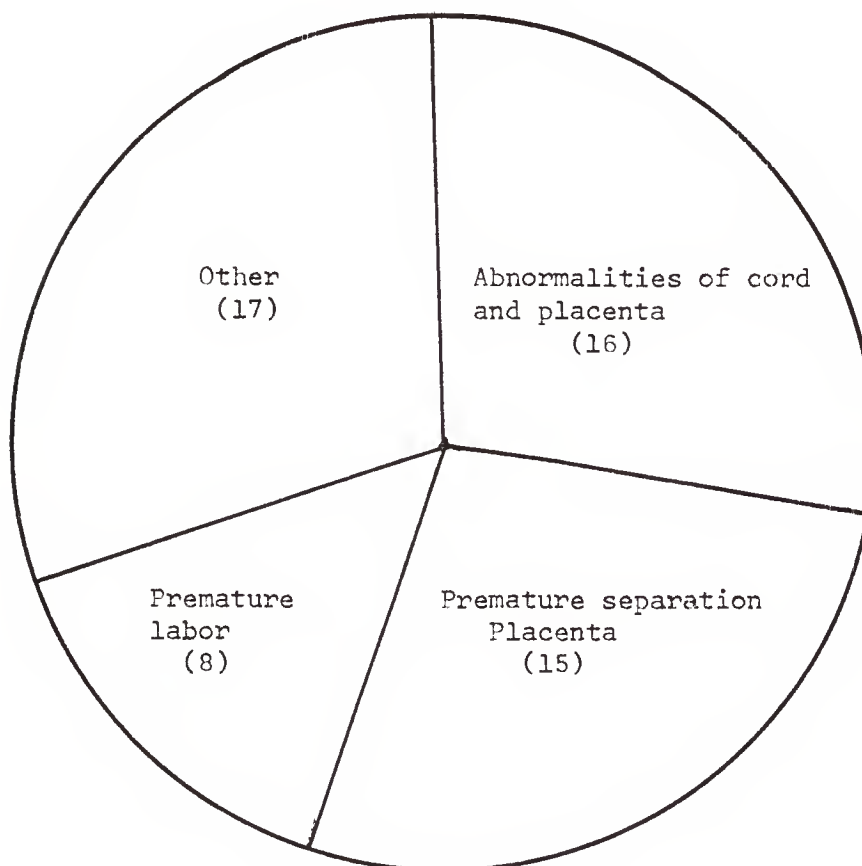
PRIMARY CAUSE OF FETAL DEATHS BY PERCENTAGE



CAUSE OF FETAL DEATH

Intrauterine death before labor	103
Anoxia	56
Immaturity	13
Immaturity (over 28 weeks)	3
Erythroblastosis	14
Congenital malformation	12
Birth injury	2
Unknown	2
Infection - virus or other	1
Fetal bleeding	1
Dehydration and acidosis	1
Not stated	6
Total	<u>214</u>

PRIMARY MATERNAL FACTORS LEADING TO ANOXIC FETAL DEATH



OTHER CAUSES OF ANOXIC DEATH

Abnormal presentation	3
Placenta previa	3
Prolapsed cord	3
Hypertensive toxemia	3
Heart disease	1
Premature rupture membranes	2
Trauma	1
None	1
	<u>17</u>

FETAL DEATHS BY BIRTH WEIGHT

<u>Weight</u>	<u>Number</u>
TOTAL	214
Under 2 lbs. 3 oz.	39
2 lbs. 3 oz. - 3 lbs. 4 oz.	22
3 lbs. 5 oz. - 4 lbs. 6 oz.	26
4 lbs. 7 oz. - 5 lbs. 8 oz.	20
5 lbs. 9 oz. - 6 lbs. 10 oz.	24
6 lbs. 11 oz. - 7 lbs. 12 oz.	27
7 lbs. 13 oz. - 8 lbs. 14 oz.	13
8 lbs. 15 oz. - 10 lbs.	3
10 lbs. 1 oz. - 11 lbs. 2 oz.	2
Not stated	38

FETAL DEATH STUDY
Length of Gestation

<u>Weeks</u>	<u>Number</u>
TOTAL	214
20	9
21	2
22	10
23	-
24	12
25	3
26	10
27	-
28	9
29	2
30	15
31	3
32	16
33	6
34	10
35	4
36	14
37	5
38	12
39	3
40	38
41	5
42	8
43	1
44	5
Not stated	12

FETAL DEATHS BY FETAL CAUSE BY AGE OF MOTHER

<u>Cause</u>	<u>TOTAL</u>	<u>Age of Mother</u>								
		<u>Under 15</u>	<u>15- 19</u>	<u>20- 24</u>	<u>25- 29</u>	<u>30- 34</u>	<u>35- 39</u>	<u>40- 44</u>	<u>45 or over</u>	<u>Not Stated</u>
TOTAL	214	1	36	72	42	34	17	9	2	1
Birth injury	2	-	-	1	-	-	-	1	-	-
Immaturity (over 28 weeks)	3	-	1	2	-	-	-	-	-	-
Anoxia	56	-	11	18	8	9	7	2	1	-
Congenital malformation	12	-	1	5	3	-	-	3	-	-
Infection, virus or other	1	-	-	-	-	1	-	-	-	-
Dehydration & acidosis	1	-	-	-	-	-	1	-	-	-
Fetal bleeding	1	-	1	-	-	-	-	-	-	-
Erythroblastosis	14	-	-	3	6	3	1	1	-	-
Immaturity	13	-	3	4	4	2	-	-	-	-
Intrauterine death before labor	103	1	19	35	21	17	8	1	-	1
Unknown	2	-	-	1	-	1	-	-	-	-
Not stated	6	-	-	3	-	1	-	1	1	-

RELATIVE RISK OF FETAL DEATH BY AGE OF MOTHER

(Based on returned questionnaires*)

<u>Mother's Age</u>	<u>Fetal Deaths</u>	<u>Ratio*</u>	<u>Total</u>	<u>Resident Live Births</u>	
				<u>1967</u>	<u>1968</u>
TOTAL, All ages	214	8.9	24,079	12,087	11,992
Under 15	1	**	31	18	13
15 - 19	36	9.3	3,886	1,960	1,926
20 - 24	72	7.6	9,488	4,747	4,741
25 - 29	42	7.1	5,899	2,885	3,014
30 - 34	34	11.9	2,848	1,467	1,381
35 - 39	17	12.2	1,393	710	683
40 - 44	9	17.9	502	278	224
45 and over	2	**	31	21	10
Age not stated	1	**	1	1	-

*Number of registered fetal deaths on which physicians returned questionnaires to the Division of Child Health Services per 1,000 live births to resident mothers of Montana.

**Number of events too small to produce meaningful ratios.

RELATIVE RISK OF FETAL DEATH BY AGE OF MOTHER

(Based on Fetal Death Certificates)

<u>Mother's Age</u>	Resident Fetal Deaths				Resident Live Births <u>1967 - 1968</u>
	<u>TOTAL</u>	<u>1967</u>	<u>1968</u>	<u>Ratio*</u>	
TOTAL, All Ages	287	141	146	11.9	24,079
Under 15	1	0	1	**	31
15 - 19	44	20	24	11.3	3,886
20 - 24	91	40	51	9.6	9,488
25 - 29	58	31	27	9.8	5,899
30 - 34	48	25	23	16.9	2,848
35 - 39	25	11	14	17.9	1,393
40 - 44	13	9	4	25.9	502
45 and over	2	1	1	**	31
Age not stated	5	4	1	**	1

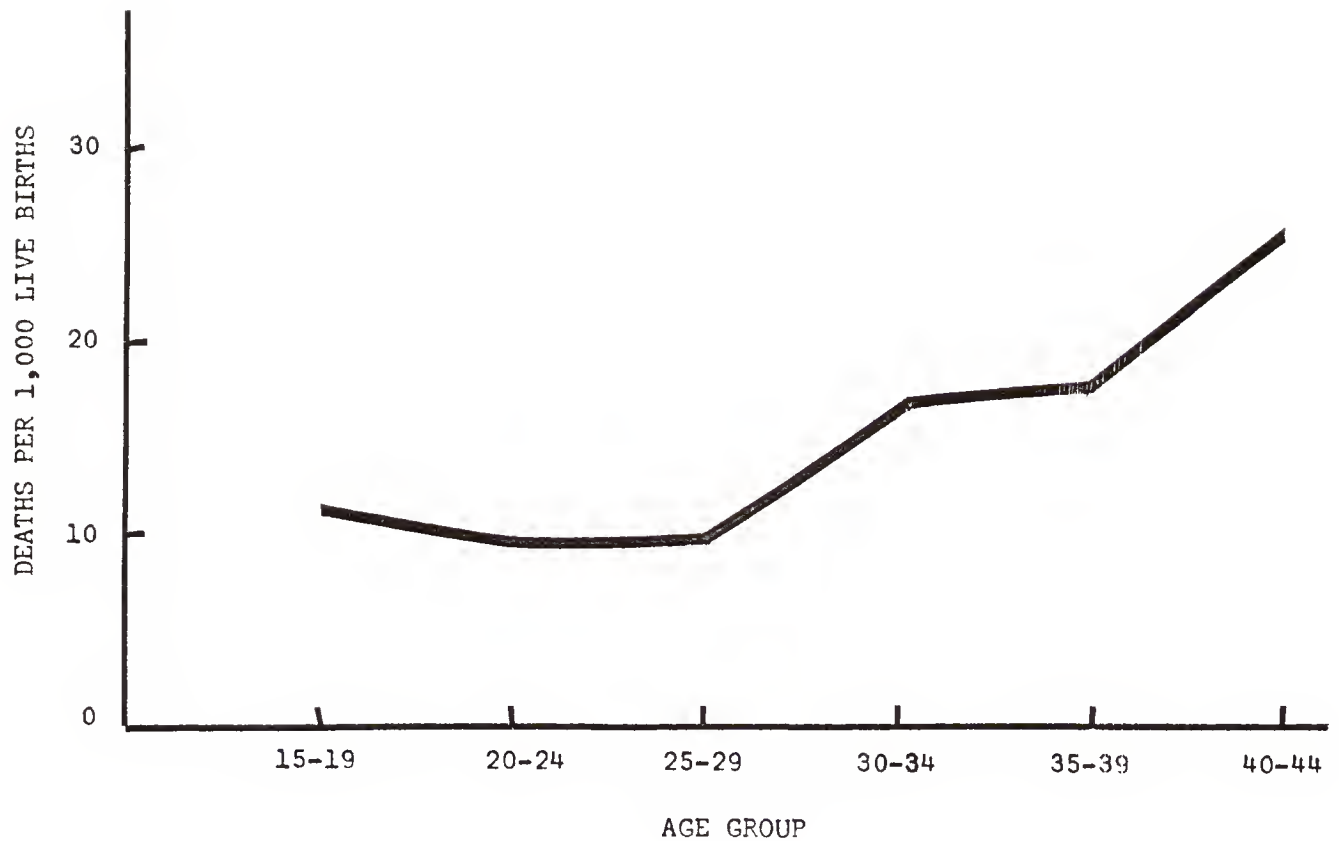
*Number of fetal deaths per 1,000 live births

**Number of events too small to produce meaningful ratio.

FETAL DEATH RATIOS BY AGE OF MOTHER

Montana, 1967 - 1968

(By place of residence)

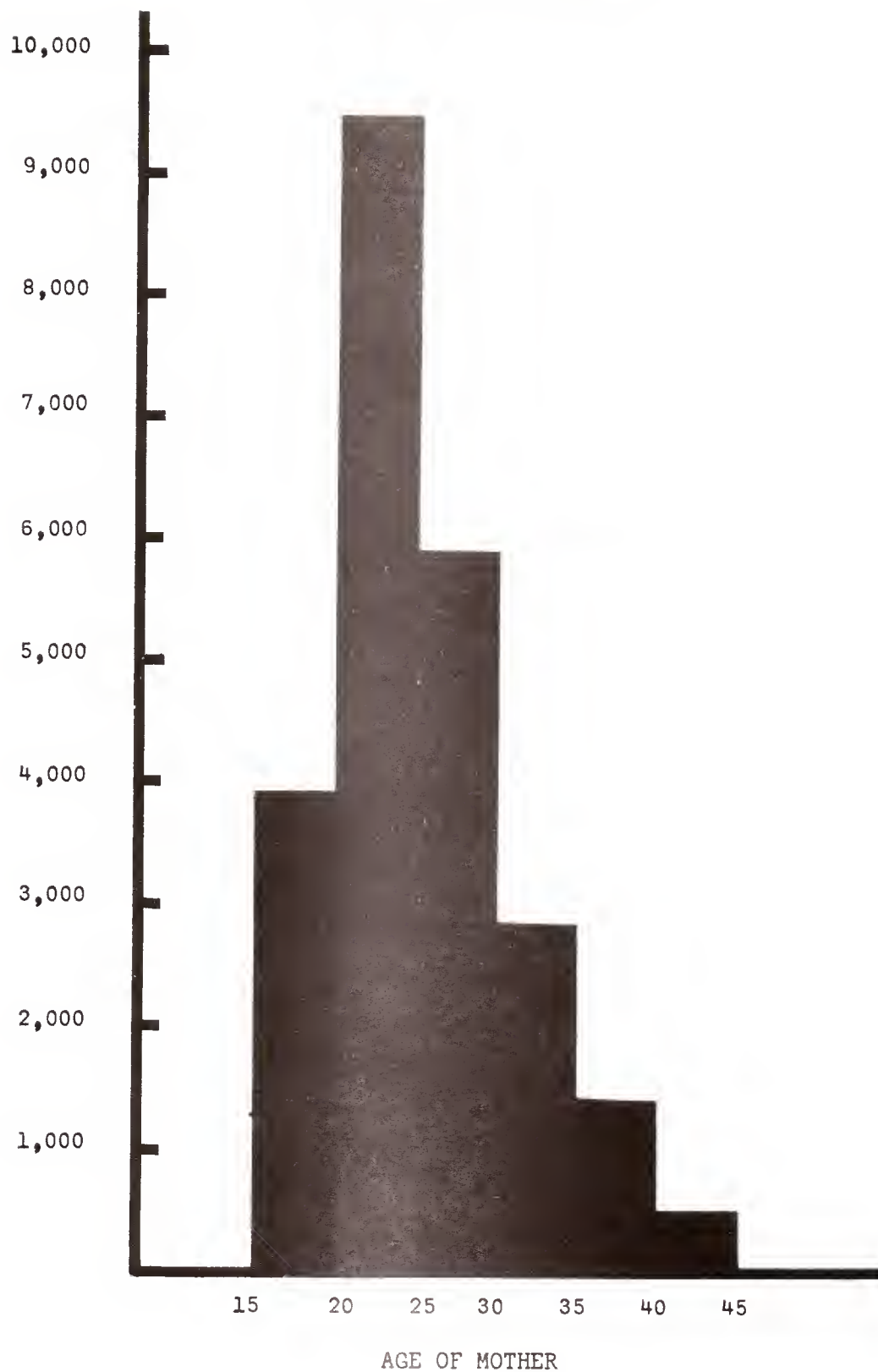


FETAL DEATHS BY MATERNAL CAUSE BY AGE OF MOTHER

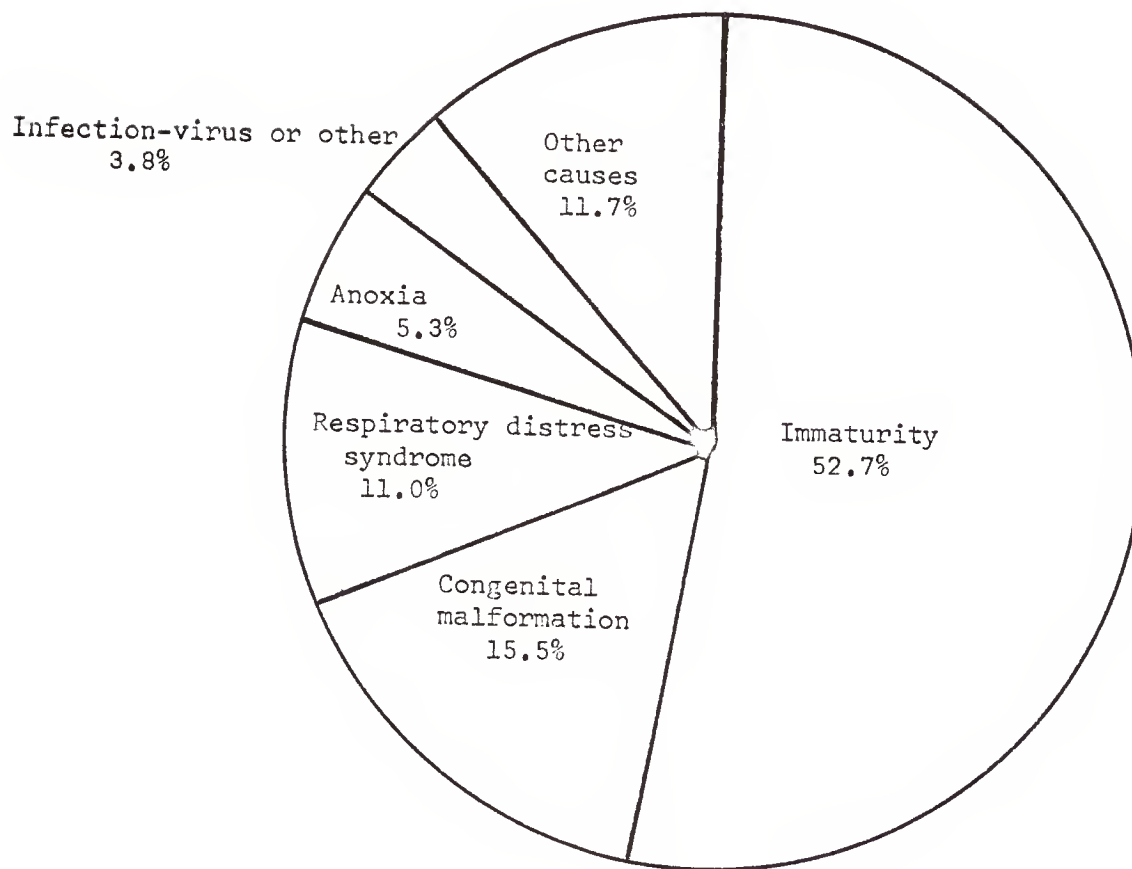
<u>First Cause</u>	<u>TOTAL</u>	<u>Age of Mother</u>									<u>Not State</u>
		<u>Under 15</u>	<u>15- 19</u>	<u>20- 24</u>	<u>25- 29</u>	<u>30- 34</u>	<u>35- 39</u>	<u>40- 44</u>	<u>45 or over</u>		
TOTAL	214	1	36	72	42	34	17	9	2	1	
Premature Labor	45	-	14	13	5	9	3	1	-	-	
Premature rupture membranes	11	-	1	7	3	-	-	-	-	-	
Premature separation placenta	28	-	7	5	5	6	5	-	-	-	
Placenta previa	5	-	2	1	-	-	1	1	-	-	
Infection, virus or other	2	-	1	1	-	-	-	-	-	-	
Malnutrition or obesity	5	-	-	2	1	-	2	-	-	-	
Threatened abortion	2	-	-	1	-	1	-	-	-	-	
Habitual abortion	2	-	-	-	-	-	1	1	-	-	
Heart disease	1	-	-	-	-	-	-	1	-	-	
Diabetes	6	-	-	2	1	1	1	-	-	1	
Rh sensitization	14	-	-	3	6	3	1	1	-	-	
Surgery	1	-	-	-	1	-	-	-	-	-	
Irradiation	1	-	-	-	1	-	-	-	-	-	
Uterine anomaly	1	-	-	1	-	-	-	-	-	-	
Multiple pregnancy	3	-	1	-	2	-	-	-	-	-	
Abnormal presentation	6	-	-	2	3	-	-	1	-	-	
Placenta & cord abnormality	23	-	2	9	5	6	1	-	-	-	
Prolapsed cord	3	-	-	1	-	-	1	-	1	-	
Hypertensive toxemia	11	-	3	4	-	3	-	-	1	-	
Unattended delivery	2	-	1	-	1	-	-	-	-	-	
Post maturity	1	-	-	1	-	-	-	-	-	-	
Trauma	1	-	-	-	-	1	-	-	-	-	
Maternal neglect or ignorance	1	-	-	-	1	-	-	-	-	-	
Maternal age	1	-	-	-	-	-	-	1	-	-	
Blood disorder or dyscrasias	2	-	-	-	1	1	-	-	-	-	
None	2	-	1	1	-	-	-	-	-	-	
Unknown	34	1	3	18	6	3	1	2	-	-	

LIVE BIRTHS BY AGE OF MOTHER

Montana, 1967-68
(By place of residence)



PRIMARY CAUSE OF NEONATAL DEATH
(264 Questionnaires)



CAUSE OF NEONATAL DEATH

Immaturity		139
Immaturity (28 weeks or less)	86	
Immaturity (28 weeks or over)		
Congenital malformation		41
Respiratory distress		29
Hyaline membrane	23	
Postnatal asphyxia or atelectasis	6	
Anoxia		14
Infection - virus or other		10
Erythroblastosis		5
Unknown		5
Birth injury		4
Aspiration		4
Fetal bleeding		1
Allergy		1
Neoplasm		1
Not stated		10
Total		<u>264</u>

NEONATAL DEATHS BY FETAL CAUSE BY AGE OF MOTHER

<u>Cause</u>	<u>Age of Mother</u>									
	<u>TOTAL</u>	<u>Under 15</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30-34</u>	<u>35-39</u>	<u>40-44</u>	<u>45 or over</u>	<u>Not Stated</u>
TOTAL	264	-	67	85	62	20	13	7	-	10
Birth injury	4	-	-	2	-	-	2	-	-	-
Immaturity (over 28 weeks)	53	-	14	15	11	6	3	-	-	4
Anoxia	14	-	2	5	1	3	-	2	-	1
Postnatal asphyxia or atelectasis	6	-	-	2	4	-	-	-	-	-
Congenital malformation	41	-	7	12	13	4	3	2	-	-
Infection, virus or other	10	-	1	3	4	-	-	1	-	1
Hyaline membrane	23	-	4	10	4	3	1	-	-	1
Aspiration	4	-	1	3	-	-	-	-	-	-
Fetal bleeding	1	-	-	-	1	-	-	-	-	-
Allergy	1	-	1	-	-	-	-	-	-	-
Erythroblastosis	5	-	1	-	1	1	1	-	-	1
Immaturity	86	-	33	29	15	2	3	2	-	2
Neoplasm	1	-	-	-	1	-	-	-	-	-
Unknown	5	-	3	2	-	-	-	-	-	-
Not stated	10	-	-	2	7	1	-	-	-	-

CONGENITAL MALFORMATIONS
(First Mentioned)

	<u>TOTAL</u>	<u>FETAL</u>	<u>NEONATAL</u>
TOTAL	42	4	38
Bone and Joint	6	2	4
Digestive	4	-	4
Genito-urinary	5	-	5
Heart and Blood Vessels	15	-	15
Nervous System	4	1	3
Respiratory	2	1	1
Cleft Palate - Cleft Lip	5	-	5
Genetic	1	-	1

FETAL DEATHS FROM ERYTHROBLASTOSIS

Mother's Blood Tested for Rh Factor

TOTAL	14
Yes	10
No	-
Not stated	4

NEONATAL DEATHS FROM ERYTHROBLASTOSIS

Blood Transfusion

<u>Age at Death</u>	<u>Total</u>	<u>Yes</u>	<u>No</u>
TOTAL	5	3	2
Under 1 day	2	-	2
Two days	2	2	-
4 - 7 days	1	1	-

1967 - 1968 BIRTHS WITH ERYTHROBLASTOSIS

Total	87
1967	75
1968	12

1967 - 1968 DEATHS WITH ERYTHROBLASTOSIS

Total	7
1967	6
1968	1

1967 - 1968 BIRTHS WITH ERYTHROBLASTOSIS

TOTAL	87
1967-----	75*
1968-----	12
LIVE BIRTHS TO MOTHERS WHO WERE RESIDENTS OF MONTANA AND WHO WERE DELIVERED IN MONTANA 1967 - 1968	23,557
MONTANA RESIDENT FETAL DEATHS 1967 - 1968	287

1967 - 1968 DEATHS WITH ERYTHROBLASTOSIS

TOTAL	7
1967-----	6
1968-----	1
Live Births with Erythroblastosis	87
Stillbirths with Erythroblastosis	22
Total deliveries with Erythroblastosis	109
Fetal deaths and deaths from Erythroblastosis	29
Percent of deliveries with Fetal result:	26.6%
Percent of deliveries with infant surviving:	73.4%
Occurrence:	3.7 cases of erythroblastosis per 1,000 live births
	4.6 cases of erythroblastosis per 1,000 deliveries**

* Includes births with mention of Rh Sensitization.

** Includes births plus stillbirths.

MATERNAL COMPLICATIONS

<u>Cause</u>	<u>Fetal</u>		<u>Neonatal</u>	
	<u>First</u>	<u>Second</u>	<u>First</u>	<u>Second</u>
TOTAL	214	214	264	264
Premature Labor	45	9	140	16
Premature rupture membranes	11	10	21	30
Premature separation placenta	28	7	12	10
Placenta previa	5	3	4	5
Infection, virus or other	2	3	10	8
Malnutrition or obesity	5	5	1	4
Severe vomiting 1st trimester	-	-	1	3
Threatened abortion	2	4	6	8
Habitual abortion	2	2	-	3
Heart disease	1	-	-	-
Diabetes	6	1	2	1
Rh sensitization	14	-	6	-
Surgery	1	2	5	2
Irradiation	1	1	-	-
Pelvic neoplasm	-	-	1	-
Uterine anomaly	1	1	-	1
Excessive amniotic fluid	-	1	1	1
Multiple pregnancy	3	9	1	15
Abnormal presentation	6	2	-	6
Placenta & cord abnormality	23	14	4	2
Prolapsed cord	3	4	-	2
Hemorrhage	-	4	-	5
Kidney anomaly or disease	-	-	-	2
Hypertensive toxemia	11	3	-	1
Rapid delivery	-	3	-	3
Unattended delivery	2	-	2	3
Post maturity	1	2	1	1
Prolonged labor	-	1	-	-
Trauma	1	2	1	-
Incompetent cervical os	-	-	1	4
Maternal neglect or ignorance	1	3	1	4
Emotional disturbance	-	1	-	-
Maternal age	1	-	-	1
Endocrine	-	-	2	-
Drugs	-	1	1	-
Inadequate prenatal care	-	-	1	-
Blood disorder or dyscrasias	2	-	-	-
None	2	-	15	-
Unknown	34	-	21	1
Not stated	-	116	3	122

MULTIPLE PREGNANCIES BY CAUSE OF PERINATAL DEATH

<u>Cause</u>	<u>Fetal Number</u>	<u>Neonatal Number</u>
TOTAL	13	27
Birth injury	-	1
Immaturity (over 28 weeks)	-	10
Anoxia	4	-
Postnatal asphyxia or atelectasis	-	1
Congenital malformation	-	1
Aspiration	-	1
Fetal bleeding	1	-
Immaturity	-	12
Intrauterine death before labor - fetal	6	-
Not stated	2	1

FETAL HEART TONES LAST HEARD

<u>Time</u>	<u>Number</u>
TOTAL	214
Less than 5 minutes	-
5 - 9 minutes	2
10 - 14 minutes	1
15 - 19 minutes	1
20 - 24 minutes	3
25 - 29 minutes	-
30 - 34 minutes	6
35 - 39 minutes	-
40 - 44 minutes	-
45 - 49 minutes	-
50 - 54 minutes	-
55 - 59 minutes	1
Less than 2 hours	4
2 - 12 hours	11
12 - 24 hours	4
Over 24 hours	77
Not heard	39
Not taken	-
Not stated	65

PRIMARY MATERNAL FACTORS LEADING TO INTRAUTERINE
DEATH BEFORE LABOR

(103 Questionnaires)

TOTAL	103
Premature Labor	25
Premature rupture membranes	5
Premature separation placenta	12
Infection, virus or other	2
Malnutrition or obesity	5
Threatened abortion	1
Habitual abortion	2
Diabetes	3
Rh sensitization	1
Uterine anomaly	1
Multiple pregnancy	3
Placenta & cord abnormality	6
Hypertensive toxemia	4
Unattended delivery	2
Maternal neglect or ignorance	1
Blood disorder or dyscrasias	2
None	1
Unknown	27

SEDATION

	<u>Fetal</u>	<u>Neonatal</u>
TOTAL	214	264
Proper administration - proper time	86	88
Proper administration - improper time	3	11
Improper administration - proper time	-	-
Improper administration - improper time	2	11
None given	116	148
Blank - no entry on questionnaire	7	6

ANTEPARTUM

Oxytoxic Drug

	<u>Fetal</u>	<u>Neonatal</u>
TOTAL	214	264
Given - Warranted	7	7
Given - Not warranted	2	1
Not given	197	248
Not stated	8	8

FETAL

Deaths from prematurity as Perinatal Cause by Maternal Complication

	<u>Primary Cause</u>		<u>Secondary Cause</u>	
	<u>Immaturity (over 28 weeks)</u>	<u>Immaturity</u>	<u>Immaturity (over 28 weeks)</u>	<u>Immaturity</u>
TOTAL	3	13	3	13
Premature Labor	1	6	1	1
Premature rupture membranes	-	3	1	2
Premature separation placenta	-	1	-	3
Infection, virus or other	-	-	-	1
Threatened abortion	1	-	-	1
Habitual abortion	-	-	-	1
Surgery	-	1	-	-
Irradiation	-	1	-	-
Placenta & cord abnormality	-	-	1	-
Prolapsed cord	-	-	-	1
Hypertensive toxemia	1	-	-	-
Rapid delivery	-	-	-	2
Unknown	-	1	-	-
Not stated	-	-	-	1

Total fetal deaths - 214

PREVIOUS PREMATURE LABORS

<u>Number of Premature Births per Mother</u>	<u>Fetal</u>	<u>Neonatal</u>
TOTAL	214	264
0	200	230
1	6	18
2	5	6
Over 9	-	1
Blank spaces - no information from questionnaire	3	9

NEONATAL

Deaths from prematurity as Perinatal Cause by Maternal Complications

<u>Cause</u>	<u>Primary Cause</u>		<u>Secondary Cause</u>	
	<u>Immaturity (over 28 weeks)</u>	<u>Immaturity</u>	<u>Immaturity (over 28 weeks)</u>	<u>Immaturity</u>
TOTAL	53	86	53	86
Premature Labor	34	61	5	7
Premature rupture membranes	9	5	4	18
Premature separation placenta	1	5	2	4
Placenta previa	1	1	1	1
Infection, virus or other	3	-	1	4
Malnutrition or obesity	-	-	1	1
Severe vomiting 1st trimester	-	-	-	2
Threatened abortion	-	5	1	5
Habitual abortion	-	-	-	2
Diabetes	-	1	-	-
Surgery	-	2	-	1
Pelvic neoplasm	1	-	-	-
Uterine anomaly	-	-	1	-
Multiple pregnancy	-	-	7	4
Abnormal presentation	-	-	2	-
Placenta & cord abnormality	-	-	1	1
Prolapsed cord	-	-	-	1
Hemorrhage	-	-	-	4
Rapid delivery	-	-	1	1
Unattended delivery	1	-	-	2
Trauma	1	-	-	-
Maternal neglect or ignorance	-	1	2	2
Endocrine	2	-	-	-
Unknown	-	1	-	-
Not stated	-	3	23	24

NEONATAL DEATHS BY MATERNAL CAUSE BY AGE OF MOTHER

<u>First Cause</u>	<u>TOTAL</u>	<u>Age of Mother</u>								<u>Not Stated</u>
		<u>Under 15</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30-34</u>	<u>35-39</u>	<u>40-44</u>	<u>45 or over</u>	
TOTAL	264	-	67	85	62	20	13	7	-	10
Premature Labor	140	-	47	49	25	7	4	5	-	3
Premature rupture membranes	21	-	3	8	5	2	3	-	-	-
Premature separation placenta	12	-	1	3	3	3	-	-	-	2
Placenta previa	4	-	1	1	-	2	-	-	-	-
Infection, virus or other	10	-	2	6	2	-	-	-	-	-
Malnutrition or obesity	1	-	-	-	1	-	-	-	-	-
Severe vomiting 1st trimester	1	-	-	-	1	-	-	-	-	-
Threatened abortion	6	-	2	-	4	-	-	-	-	-
Diabetes	2	-	1	1	-	-	-	-	-	-
Rh sensitization	6	-	1	-	2	1	-	-	-	2
Surgery	5	-	1	-	2	-	2	-	-	-
Pelvic neoplasm	1	-	-	-	1	-	-	-	-	-
Excessive amniotic fluid	1	-	1	-	-	-	-	-	-	-
Multiple pregnancy	1	-	-	-	-	-	1	-	-	-
Placenta & cord abnormality	4	-	-	2	-	-	1	1	-	-
Unattended delivery	2	-	1	-	-	-	-	-	-	1
Post maturity	1	-	-	-	1	-	-	-	-	-
Trauma	1	-	-	1	-	-	-	-	-	-
Incompetent cervical os	1	-	-	-	1	-	-	-	-	-
Maternal neglect or ignorance	1	-	1	-	-	-	-	-	-	-
Endocrine	2	-	-	-	-	-	-	-	-	2
Drugs	1	-	-	1	-	-	-	-	-	-
Inadequate prenatal care	1	-	-	1	-	-	-	-	-	-
None	15	-	1	6	5	3	-	-	-	-
Unknown	21	-	4	4	8	2	2	1	-	-
Not stated	3	-	-	2	1	-	-	-	-	-

FETAL AND NEONATAL DEATHS FROM ANOXIA
AS PERINATAL CAUSE BY MATERNAL COMPLICATIONS

<u>Cause</u>	<u>Primary Cause</u>		<u>Secondary Cause</u>	
	<u>Fetal*</u>	<u>Neonatal**</u>	<u>Fetal*</u>	<u>Neonatal**</u>
TOTAL	56	14	56	14
Premature Labor	8	6	2	1
Premature rupture membranes	2	-	2	1
Premature separation placenta	15	2	1	-
Placenta previa	3	1	2	1
Malnutrition or obesity	-	-	-	1
Threatened abortion	-	-	-	1
Heart disease	1	-	-	-
Diabetes	-	1	-	-
Surgery	-	-	1	-
Multiple pregnancy	-	-	4	-
Abnormal presentation	3	-	1	-
Placenta & cord abnormality	16	2	4	-
Prolapsed cord	3	-	2	1
Hemorrhage	-	-	3	1
Hypertensive toxemia	3	-	1	-
Rapid delivery	-	-	1	1
Unattended delivery	-	1	-	-
Trauma	1	-	1	-
Emotional disturbance	-	-	1	-
None	1	-	-	-
Unknown	-	1	-	-
Not stated	-	-	30	6

*Total fetal deaths - 214

**Total neonatal deaths - 264

WEEKS OF GESTATION AT FIRST EXAMINATION

<u>Weeks</u>	<u>Fetal</u>	<u>Neonatal</u>
TOTAL	214	264
No exam prior to admission at hospital for delivery	5	16
1 - 13	99	137
14 - 26	58	71
27 - 39	20	8
40 and over	1	-
No information from questionnaire and not stated	14	16
Not stated	17	16

NUMBER OF ANTEPARTUM EXAMINATIONS FOR FETAL DEATHS
EXCLUDING THOSE WITH PREMATURE LABOR

<u>Number of Examinations</u>	<u>Number</u>
TOTAL	158
1 - 3	23
4 - 6	26
7 - 9	33
Over 9	47
None	4
Not stated	15
Blank spaces	10

ANTEPARTUM CARE FETAL

<u>Extent</u>	<u>Number</u>
TOTAL	214
Adequate	116
Inadequate	67
None	12
Unknown	15
Not stated	4

PHYSICIAN'S OPINION

Might Death Have Been Prevented

<u>Answer</u>	<u>Fetal</u>	<u>Neonatal</u>
TOTAL	214	264
Yes	41	26
No	130	196
Possibly	10	10
Unknown	2	3
Not stated	31	29

INFECTION IN MOTHER DURING PREGNANCY

<u>Cause</u>	<u>Fetal Number</u>	<u>Neonatal Number</u>
TOTAL	214	264
Intrauterine	-	-
Sepsis	-	-
Pneumonia	-	1
Urinary tract	-	-
Meningitis	-	-
Rubella	-	-
Viral	-	2
Tuberculosis	-	-
Cervico-vaginitis	-	-
Syphilis	1	-
None	213	261

FETAL AND NEONATAL INFECTIONS

<u>Cause</u>	<u>Fetal Number</u>	<u>Neonatal Number</u>
TOTAL	214	264
Intrauterine	1	-
Sepsis	-	3
Pneumonia	-	6
Urinary tract	-	1
Meningitis	-	1
Rubella	-	-
Viral	-	-
Tuberculosis	-	-
Cord infection	-	-
Syphilis	-	-
None	213	253

TYPE OF DELIVERY

<u>Method</u>	<u>Fetal</u>	<u>Neonatal</u>
TOTAL	214	264
Spontaneous	149	195
Low Forceps	12	16
Mid Forceps	1	2
High Forceps	-	1
Manual rotation	1	-
Instrumental rotation	-	-
Breech extraction	18	20
External version	-	-
Internal podalic version	2	-
Low cervical cesarean	10	8
Classical cesarean	10	4
Cesarean--hysterectomy (porro)	-	2
Primary low cervical section	-	-
Repeat low cervical section	-	1
Primary classical cesarean	4	-
Repeat classical cesarean	-	1
Not stated	7	14

AUTOPSY - FETAL

	<u>Number</u>	<u>Percent</u>
TOTAL	214	100.0
Yes	7	3.3
No	207	96.7

AUTOPSY - NEONATAL

	<u>Number</u>	<u>Percent</u>
TOTAL	264	100.0
Yes	52	19.7
No	212	80.3

DIAGNOSTIC PROCEDURES

<u>Type Used</u>	<u>Fetal</u>		<u>Neonatal</u>	
	<u>First</u>	<u>Second</u>	<u>First</u>	<u>Second</u>
TOTAL	214	214	264	264
X-ray	2	-	48	2
Lumbar puncture	-	-	2	1
Stool culture	-	-	1	-
Blood study	-	-	19	16
Coomb's Test	-	-	16	11
Culture	-	-	4	3
Autopsy	7	-	24	19
None	205	214	150	212

AGPAR SCORE

<u>Agpar Score</u>	<u>Number</u>
TOTAL	264
00	7
01	23
02	30
03	25
04	19
05	16
06	10
07	18
08	14
09	22
10	7
Not stated	73

BIRTH INJURY
(Listing of 9 other Birth Injuries)
1967 Births

<u>Type of Injury</u>	<u>Number</u>
Molding of head	2
Brachial plaxus paralysis	1
Erb's Palsy RUE	1
Loss muscle tone, left leg	1
Cut on left cheek	1
Contusion face	1
Possible left axillary nerve injury	1
Superficial marks on cheeks	<u>1</u>
Total	9

Listing of 13 other Birth Injuries
1968 Births

Bruise or abrasion	6
Brachial plexus injury	2
Facial paralysis	2
Left Erb's paralysis	1
Ecchymosis to lips, nose, and left temple	1
Hematoma	<u>1</u>
Total	13

CONGENITAL MALFORMATIONS - BIRTH CERTIFICATES 1967

Total listed	145
Cleft palate - cleft lip	18
Bone-joint defects	18
Genitourinary	15
Ear defects	14
Heart-circulation defects	14
Club foot	12
Hydrocephalus	8
Spina bifida	7
Defects of digestive organs	6
Poly or syndactylism	6
Nervous and Mongolism	6
Hemangioma	5
Muscle defects	3
Multiple congenital anomalies	3
Other defects of oral cavity	3
Skin tags	2
Micrognathia	1
High arched palate	1
Congenital goiter	1
Cyst	1
Disphragmatic hernia	1

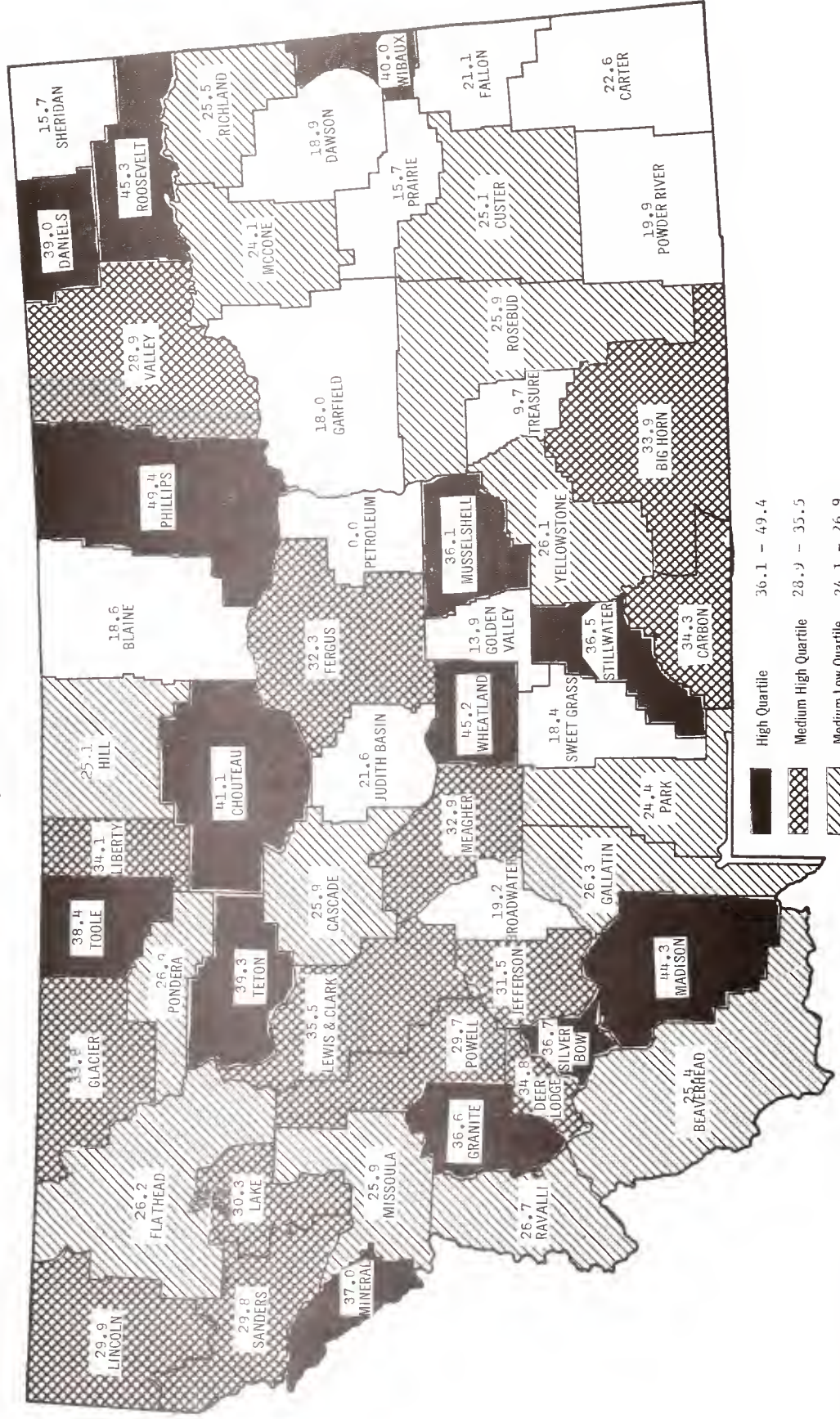
CONGENITAL MALFORMATIONS - BIRTH CERTIFICATES 1968

Total listed	148
Cleft palate - cleft lip	20
Genitourinary defects	17
Heart defects	16
Club foot	16
Bone - joint defects	15
Poly or syndactylism	11
Hydrocephalus - anencephalus	8
Spina bifida	7
Ear defects	6
Nervous and Mongolism	5
Diaphragmatic hernia	5
Defects of digestive organs	5
Muscle defects	3
Eye defects	2
Hemangioma	2
Skin tags	2
Nose defects	2
Micrognathia	1
Polycystic disease	1
Mild sternal diaphragm adhesion	1
Pigmented nevus	1
Teratoma	1
Other chromosomal abnormalities	1

FIVE YEAR PERINATAL DEATH RATES*

MONTANA, 1964 - 68

(by Place of Residence)



*Fetal and Neonatal deaths divided by Live births plus Fetal deaths multiplied by 1,000.

STATISTICAL ANALYSIS OF NATALITY DATA FOR THE FIVE YEAR PERIOD 1964-1968

As we have done the previous two years, we reviewed the items submitted to your office for any trends developing over the last five years. Each item is discussed separately.

After ten years of usage, the birth certificate was revised on the national level. Montana also changed its certificate to comply as much as permissible with the national standard and began using the new version on January 1, 1968. Quite a few changes have been incorporated, we hope for the better, especially in the confidential section. New items were added, some were changed, and some were completely deleted. Therefore, in some instances it is very difficult or even impossible to make statistical comparisons over the last years. We will have to wait in order to see any trends.

One item deleted is "length of pregnancy". Instead, the date last normal menses began is given. This permits us to compute the length of gestation by computer. Since 40 weeks is considered term, one would expect, when plotting the length of pregnancy, a normal curve peaking at 40 weeks, but slightly skewed to the left (the early months) by chance alone. As you can see by the attached graph prepared from the computer print-out, this is actually the case. This method to arrive at the length of pregnancy, is statistically more valid than the one in which the doctor states the gestation period. In the early months doctors seem to determine the elapsed time quite accurately (with preference to the even numbers), but during the last month of pregnancy, they add their personal and professional judgment as to appearance of the baby, no matter how long the mother carried the baby according to the calendar.

As can be expected, the new way of figuring the length of pregnancy incorporates errors in the mother's memory as to when she had her last menses. It also shows problems in the menstrual cycle of a woman. This year, also, inconsistent reporting due to people not being used to the new requirements for information resulted in some unbelievable figures. 1.3% of the births occurring to Montana residents delivering in Montana were stated to have had a gestation period of less than 16 weeks. 4.6% of the births were carried over 45 weeks. 1.7% had the date of last menses not stated. 43.6% of the births were carried less than 40 weeks, 34.0% over 40 weeks, and 20.7% exactly 40 weeks. 52.4% of the babies were term babies; that is, they had a gestation period of 39-41 weeks. 63.1% were carried 38-42 weeks, which is considered term by some authorities. There were 9.8% premature births; that is, under 36 weeks of pregnancy. The over all picture should remain the same over the years, but we expect improvements in reporting, and thus fewer births in the extreme months and in the "not stated" group.

Item 21: "Weight at birth":

7.5% of the births were 5 lbs. 8 oz. or less and thus considered premature. For the last five years the range spread from 7.1% in 1964 to 8.2% in 1966. Since 1966 the "weight not given" group has remained at 0.2%. In order to correlate weight at birth with length of pregnancy, we will have to wait a few years because the old and new methods of computing the gestation period are not comparable. One must observe the performance of the new method over several years to make a meaningful analysis.

Item 19a: "Month prenatal care began":

This is also a new item. Therefore, many people again did not enter this item on the certificate because they were not used to it. 2.1% of the births were not stated. 34.0% of the mothers started going to the doctor in their second month of pregnancy, 27.0% in the third. 70.9% went during the first trimester, 22.2% during the second, and 4.7% in the third. Since women should see the doctor early and regularly during pregnancy, we hope for an improvement in these data. If the next years do not show an increase of percentage during the first trimester, a program to correct this might be in order. It is also interesting to note that unwed mothers seek the doctor's care later than married women: only 35.1% sought medical care for the first time during the first trimester, and 35.9% during the second. 20.0% went to the doctor in their last trimester or not at all.

Item 19b: "Number of prenatal visits":

This, again, is a new item. We hope that this information will help us to see if the pregnant woman receives sufficient care. Of course, some mothers don't need much supervision because the pregnancy takes its course smoothly and normally. However, we believe that even a healthy pregnant woman should see the doctor once a month at first, then more often during the last month. Therefore, most expectant mothers should visit the doctor at least nine times before delivery. Our figures show that 63.1% of the pregnant women did go to the doctor nine or more times. However, there were also 1.3% that didn't see the doctor at all before giving birth, and 6.3% visited the doctor only three or less times. 2.5% left this item blank on the certificate. We assume that this figure will shrink with usage. Again we find that the even numbers are preferred to the uneven numbers. This might be due to the practice of some hospitals gathering this information from the mother instead of from the doctor who keeps accurate written records.

Item 23: "Birth injury":

0.27% of the babies received an injury during delivery, the highest percentage in the last five years. However, the numbers are too few to make an analysis meaningful.

Item 25: "Congenital Malformations":

1.28% of the babies were born with a congenital malformation. There are again too few numbers for analysis.

Item 22: "Complications of pregnancy":

24: "Complications not related to pregnancy":

26: "Complications of labor":

On the new certificate the item "complications of pregnancy and labor" has been divided into the above-named three items. This will permit us to determine trends and health problems more readily in the future. However, this year (1968) it is difficult or even useless in some instances to make an analysis, although we had not changed our coding procedure significantly. But, as of January 1, 1970, a new

set of codes, which have been approved by Dr. Dawson, will be used for each item. We hope these will yield good and meaningful data on health problems concerning pregnancy in the future. Some information is quite apparent already, however. Toxemias account for 63.1% of all complications of pregnancy. Complications during labor occur more often each year, which either means that the doctors are more conscientious in reporting such problems, or women really do have more trouble when delivering their babies. The future years will give us detailed information as to which problems arise during labor. The overall percentage of complications of pregnancy and labor has also increased steadily over at least the last six years, but this is probably due to the increase in labor difficulties. The big jump from 11.3% in 1967 to 14.0% in 1968 could be explained by the few changes in coding we did have to make. For one thing, instead of only one code for "other" we now have three, and many conditions are lumped now into this code that have not been coded before.

Item 27: "Operations":

18.8% of all deliveries needed help through a surgical procedure other than episiotomy. This is the first time in six years that the percentage is lower than the one in the preceding year. The use of cesarean section has increased, also the practice of inducing labor. 56.4% of all operations performed were deliveries with the aid of low forceps which is a large jump from last year. The use of low forceps had increased steadily each year before, too. Either more doctors make this a routine procedure, or the increased labor difficulties necessitate an increased use of instruments. Also, more doctors report the use of high forceps each year. There are still less than ten cases, though.

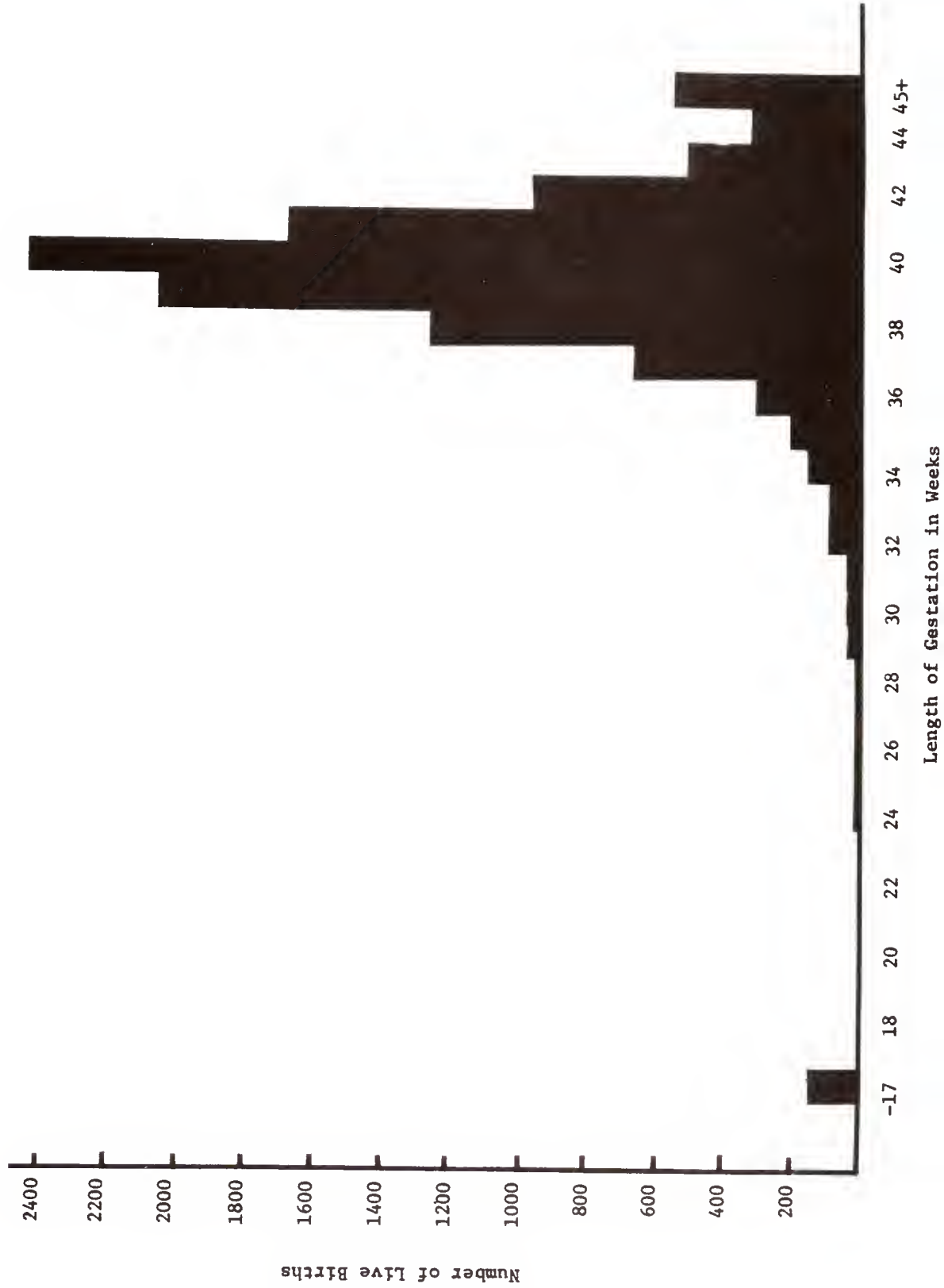
Item 28: "Prophylaxis used":

After checking as far back as 1963, the same trends are apparent: the use of silver nitrate decreases rapidly, and the use of antibiotics increases accordingly. This year, however, more sulfa drugs were used than in the preceding years. The percentage of "no prophylaxis used" has dropped from 4.0% to 1.2% of all Montana births.

We are currently engaged in analyzing and correlating some of the new items further. So far you have received our study on month prenatal care began as it relates to education of the mother. Future studies will be distributed as they are completed. We would be very interested in any comments you might have on these studies, and in any suggestions as to what you would like to see compared or correlated.

If you have any questions regarding this analysis, or if you would like additional information, please let us know.

LIVE BIRTHS BY GESTATION AGE:
 Montana, 1968
 (Infants born in Montana to mothers who were Montana residents)



MONTH PRENATAL CARE BEGAN BY COUNTY

At Dr. Anderson's suggestion, we have prepared a tabulation which shows the number and percent of live births by month prenatal care began for Montana counties for 1968. Also attached are charts which depict this information graphically for selected counties. Since it becomes confusing if too many lines appear on a single graph, we selected a "good" county and a "bad" county for display on each graph. This minimizes the intermingling of the lines.

Counties were selected for graphic presentation by summing the percent figures in the first trimester. "Good" counties selected were those that had in excess of 77% of mothers who initiated prenatal care in the first trimester; "bad" counties were those where less than 55% initiated care in the first trimester. Graphs were not prepared for counties with only a few live births over the entire year.

When these counties are displayed, it will be noted that in each case, the "bad" county is also an "Indian" county. With this in mind we then prepared another tabulation which shows the month prenatal care began by race of mother. It is readily apparent on the basis of this criterion that the prenatal care of Indians is inferior to that of whites.

The federal government has been responsible for providing medical care for Indians for over 80 years.¹ The goal of the Division of Indian Health is "to raise the health status of the American Indian and Alaska native to the highest possible level."² It would appear, based on these data, that even the more modest goal of bringing the level of Indian health up to that of the white community is indeed a long term one.

Note that the scales on all graphs are identical so that the lines on one graph can be compared with those on another. The chart containing Gallatin and Glacier Counties represent the two counties at the extreme ends of the spectrum.

Because percentages are used, the areas under the curves are equal for all counties.

We are also enclosing a chart which shows the percent of birth certificates filed by county with month prenatal care began not stated. We have observed in the past that careful completion of vital records is often closely correlated with quality of medical care.

¹An act to ratify and confirm an agreement with the Gros Ventre, Piegan Blood, Blackfeet, and River Crow Indians in Montana was signed by representatives of these tribes on December 28, 1886, and approved by the 50th Congress in 1888. Chapter 213, Article III. This treaty provides in part for " . . . procuring medicine and medical assistance"

²The Principles of Program Packaging in the Division of Indian Health, U.S. Department of Health, Education and Welfare, Public Health Service, Bureau of Medical Services, January 15, 1966.

LIVE BIRTHS BY MONTH PRENATAL CARE BEGAN
Montana Counties, 1968
(Mothers who delivered in Montana and were residents of Montana)

County	Total		1		2		3		4		5		6		7		8		9		Not Stated	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
TOTAL, All Counties	11733	100.0	1162	9.9	3994	34.0	3163	27.0	1310	11.2	792	6.8	505	4.3	295	2.5	179	1.5	83	0.7	250	2.1
Beaverhead	142	100.0	9	6.3	51	35.9	46	32.4	16	11.3	11	7.7	4	2.8	1	0.7	3	2.1	-	0.0	1	0.7
Big Horn	214	100.0	14	6.5	65	30.4	38	17.8	19	8.9	18	8.4	19	8.9	12	5.6	9	4.2	6	2.8	14	6.5
Blaine	118	100.0	6	5.1	26	22.0	33	28.0	15	12.7	17	14.4	13	11.0	1	0.8	5	4.2	2	1.7	-	0.0
Broadwater	43	100.0	7	16.3	12	27.9	10	23.3	6	14.0	5	11.6	1	2.3	1	2.3	-	0.0	-	0.0	1	2.3
Carbon	84	100.0	11	13.1	26	31.0	18	21.4	12	14.3	9	10.7	4	4.8	2	2.4	-	0.0	1	1.2	1	1.2
Carter	25	100.0	5	20.0	5	20.0	6	24.0	6	24.0	1	4.0	-	0.0	1	4.0	-	0.0	-	0.0	1	4.0
Cascade	1618	100.0	145	9.0	538	33.3	441	27.3	199	12.3	117	7.2	82	5.1	45	2.8	24	1.5	7	0.4	20	1.2
Chouteau	97	100.0	-	0.0	34	35.1	32	33.0	15	15.5	10	10.3	2	2.1	2	2.1	-	0.0	-	0.0	2	2.1
Custer	203	100.0	26	12.8	79	38.9	51	25.1	20	9.9	14	6.9	4	2.0	3	1.5	1	0.5	2	1.0	3	1.5
Daniels	27	100.0	1	3.7	7	25.9	10	37.0	2	7.4	3	11.1	1	3.7	2	7.4	1	3.7	-	0.0	-	0.0
Dawson	203	100.0	22	10.8	75	36.9	51	25.1	18	8.9	16	7.9	7	3.4	8	3.9	3	1.5	-	0.0	3	1.5
Deer Lodge	206	100.0	13	6.3	67	32.5	53	25.7	33	16.0	16	7.8	11	5.3	4	1.9	1	0.5	1	0.5	7	3.4
Fallon	82	100.0	7	8.5	19	23.2	25	30.5	15	18.3	7	8.5	3	3.7	3	3.7	1	1.2	-	0.0	2	2.4
Fergus	194	100.0	20	10.3	79	40.7	38	19.6	20	10.3	13	6.7	9	4.6	7	3.6	6	3.1	-	0.0	2	1.0
Flathead	678	100.0	74	10.9	262	38.6	186	27.4	59	8.7	41	6.0	23	3.4	14	2.1	11	1.6	5	0.7	3	0.4
Callatin	490	100.0	53	10.8	223	45.5	121	24.7	49	10.0	19	3.9	10	2.0	6	1.2	2	0.4	1	0.2	6	1.2
Garfield	31	100.0	3	9.7	8	25.8	9	29.0	4	12.9	5	16.1	1	3.2	-	0.0	1	3.2	-	0.0	-	0.0

LIVE BIRTHS BY MONTH PRENATAL CARE BEGAN, CONTINUED
Montana Counties, 1968
(Mothers who delivered in Montana and were residents of Montana)

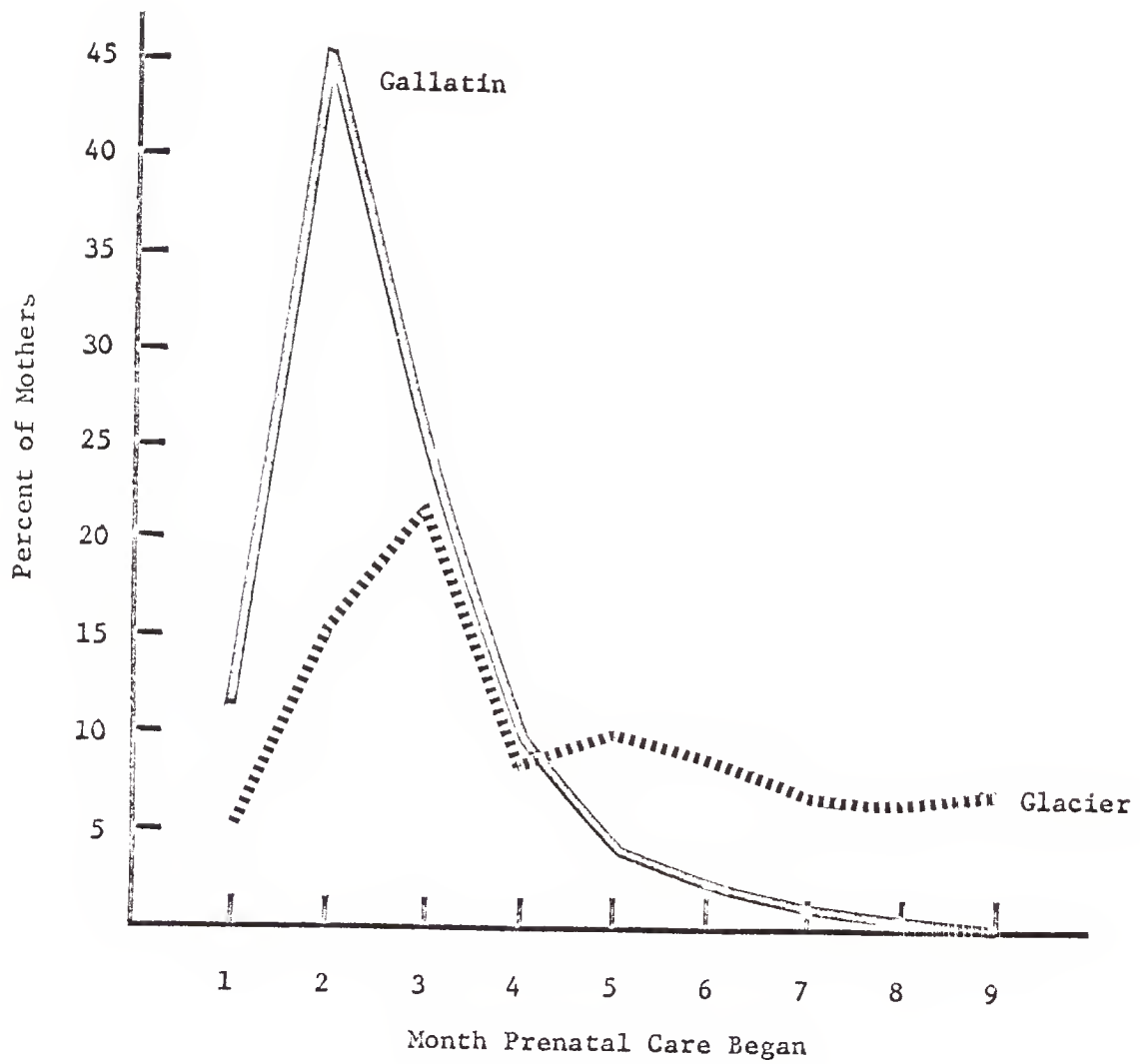
County	Total		1		2		3		4		5		6		7		8		9		Not Stated	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Glacier	220	100.0	11	5.0	34	15.5	48	21.8	18	8.2	22	10.0	19	8.6	15	6.8	14	6.4	15	6.8	24	10.9
Golden Valley	17	100.0	6	35.3	5	29.4	2	11.8	2	11.8	-	0.0	-	0.0	-	0.0	1	5.9	-	0.0	1	5.9
Granite	46	100.0	2	4.3	10	21.7	15	32.6	9	19.6	3	6.5	3	6.5	1	2.2	-	0.0	1	2.2	2	4.3
Hill	287	100.0	36	12.5	82	28.6	75	26.1	27	9.4	23	8.0	16	5.6	11	3.8	3	1.0	3	1.0	11	3.8
Jefferson	71	100.0	6	8.5	16	22.5	22	31.0	9	12.7	7	9.9	4	5.6	1	1.4	2	2.8	4	5.6	-	0.0
Judith Basin	38	100.0	4	10.5	16	42.1	6	15.8	7	18.4	3	7.9	-	0.0	1	2.6	1	2.6	-	0.0	-	0.0
Lake Lewis & Clark	212	100.0	10	8.5	67	31.6	53	25.0	23	10.8	13	6.1	14	6.6	4	1.9	8	3.8	1	0.5	11	5.2
Liberty	551	100.0	62	11.4	214	38.8	152	27.6	54	9.8	28	5.1	17	3.1	12	2.2	5	0.9	3	0.5	3	0.5
Lincoln	37	100.0	-	0.0	14	37.8	12	32.4	7	18.9	2	5.4	1	2.7	-	0.0	1	2.7	-	0.0	-	0.0
Lincoln	323	100.0	28	8.7	111	34.4	92	28.5	41	12.7	18	5.6	19	5.9	4	1.2	4	1.2	1	0.3	5	1.5
McCone	41	100.0	7	17.1	14	34.1	11	26.8	2	4.9	2	4.9	2	4.9	-	0.0	1	2.4	-	0.0	2	4.9
Madison	64	100.0	8	12.5	17	26.6	21	32.8	7	10.9	2	3.1	3	4.7	2	3.1	-	0.0	-	0.0	4	6.2
Meagher	34	100.0	1	2.9	8	23.5	9	26.5	4	11.8	3	8.8	5	14.7	-	0.0	-	0.0	-	0.0	4	11.8
Mineral	49	100.0	4	8.2	14	28.6	10	20.4	5	10.2	5	10.2	6	12.2	2	4.1	2	4.1	1	2.0	-	0.0
Missoula	1063	100.0	153	14.4	419	39.4	292	27.5	94	8.8	48	4.5	27	2.5	8	0.8	8	0.8	4	0.4	10	0.9
Musselshell	59	100.0	3	5.1	15	25.4	16	27.1	6	10.2	9	15.3	5	8.5	1	1.7	3	5.1	-	0.0	1	1.7
Park	163	100.0	21	12.9	55	33.7	50	30.7	11	6.7	11	6.7	5	3.1	5	3.1	2	1.2	-	0.0	3	1.8
Petroleum	9	100.0	1	11.1	4	44.4	3	33.3	-	0.0	-	0.0	-	0.0	-	0.0	1	11.1	-	0.0	-	0.0
Phillips	97	100.0	8	8.2	36	37.1	25	25.8	11	11.3	8	8.2	3	3.1	2	2.1	1	1.0	1	1.0	2	2.1

LIVE BIRTHS BY MONTH PRENATAL CARE BEGAN, CONTINUED
Montana Counties, 1968
(Mothers who delivered in Montana and were residents of Montana)

County	Total		1		2		3		4		5		6		7		8		9		Not Stated	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Pondera	113	100.0	11	9.7	33	29.2	40	35.4	10	8.8	6	5.3	5	4.4	2	1.8	1	0.9	-	0.0	5	4.4
Powder River	44	100.0	3	6.8	12	27.3	13	29.5	8	18.2	4	9.1	2	4.5	-	0.0	-	0.0	1	2.3	1	2.3
Powell	94	100.0	7	7.4	26	27.7	23	24.5	17	18.1	8	8.5	3	3.2	3	3.2	2	2.1	1	1.1	4	4.3
Prairie	20	100.0	3	15.0	6	30.0	4	20.0	3	15.0	2	10.0	1	5.0	1	5.0	-	0.0	-	0.0	-	0.0
Ravalli	196	100.0	26	13.3	72	36.7	54	27.6	19	9.7	9	4.6	5	2.6	5	2.6	6	3.1	-	0.0	-	0.0
Richland	159	100.0	6	3.8	35	22.0	45	28.3	28	17.6	18	11.3	10	6.3	8	5.0	3	1.9	1	0.6	5	3.1
Roosevelt	224	100.0	21	9.4	40	17.9	61	27.2	32	14.3	11	4.9	14	6.2	15	6.7	7	3.1	6	2.7	17	7.6
Rosebud	134	100.0	5	3.7	31	23.1	28	20.9	23	17.2	11	8.2	7	5.2	8	6.0	6	4.5	3	2.2	12	9.0
Sanders	62	100.0	10	16.1	21	33.9	16	25.8	7	11.3	2	3.2	3	4.8	3	4.8	-	0.0	-	0.0	-	0.0
Sheridan	67	100.0	5	7.5	27	40.3	17	25.4	8	11.9	3	4.5	3	4.5	1	1.5	1	1.5	-	0.0	2	3.0
Silver Bow	760	100.0	62	8.2	237	31.2	256	33.7	75	9.9	65	8.6	30	3.9	13	1.7	10	1.3	5	0.7	7	0.9
Stillwater	60	100.0	4	6.7	20	33.3	17	28.3	8	13.3	3	5.0	2	3.3	3	5.0	1	1.7	1	1.7	1	1.7
Sweet Grass	43	100.0	2	4.7	14	32.6	10	23.3	10	23.3	3	7.0	-	0.0	2	4.7	-	0.0	-	0.0	2	4.7
Teton	70	100.0	5	7.1	18	25.7	20	28.6	8	11.4	7	10.0	5	7.1	1	1.4	-	0.0	-	0.0	6	8.6
Toole	89	100.0	14	15.7	30	33.7	25	28.1	5	5.6	4	4.5	2	2.2	4	4.5	-	0.0	1	1.1	4	4.5
Treasure	16	100.0	-	0.0	3	18.8	4	25.0	6	37.5	2	12.5	-	0.0	1	6.2	-	0.0	-	0.0	-	0.0
Valley	289	100.0	18	6.2	93	32.2	108	37.4	35	12.1	19	6.6	4	1.4	4	1.4	2	0.7	2	0.7	4	1.4
Wheatland	45	100.0	5	11.1	7	15.6	19	42.2	3	6.7	2	4.4	-	0.0	3	6.7	1	2.2	-	0.0	5	11.1
Wibaux	21	100.0	3	14.3	6	28.6	8	38.1	1	4.8	-	0.0	1	4.8	1	4.8	-	0.0	-	0.0	1	4.8
Yellowstone	1391	100.0	156	11.2	536	38.5	313	22.5	159	11.4	84	6.0	65	4.7	36	2.6	14	1.0	3	0.2	25	1.8

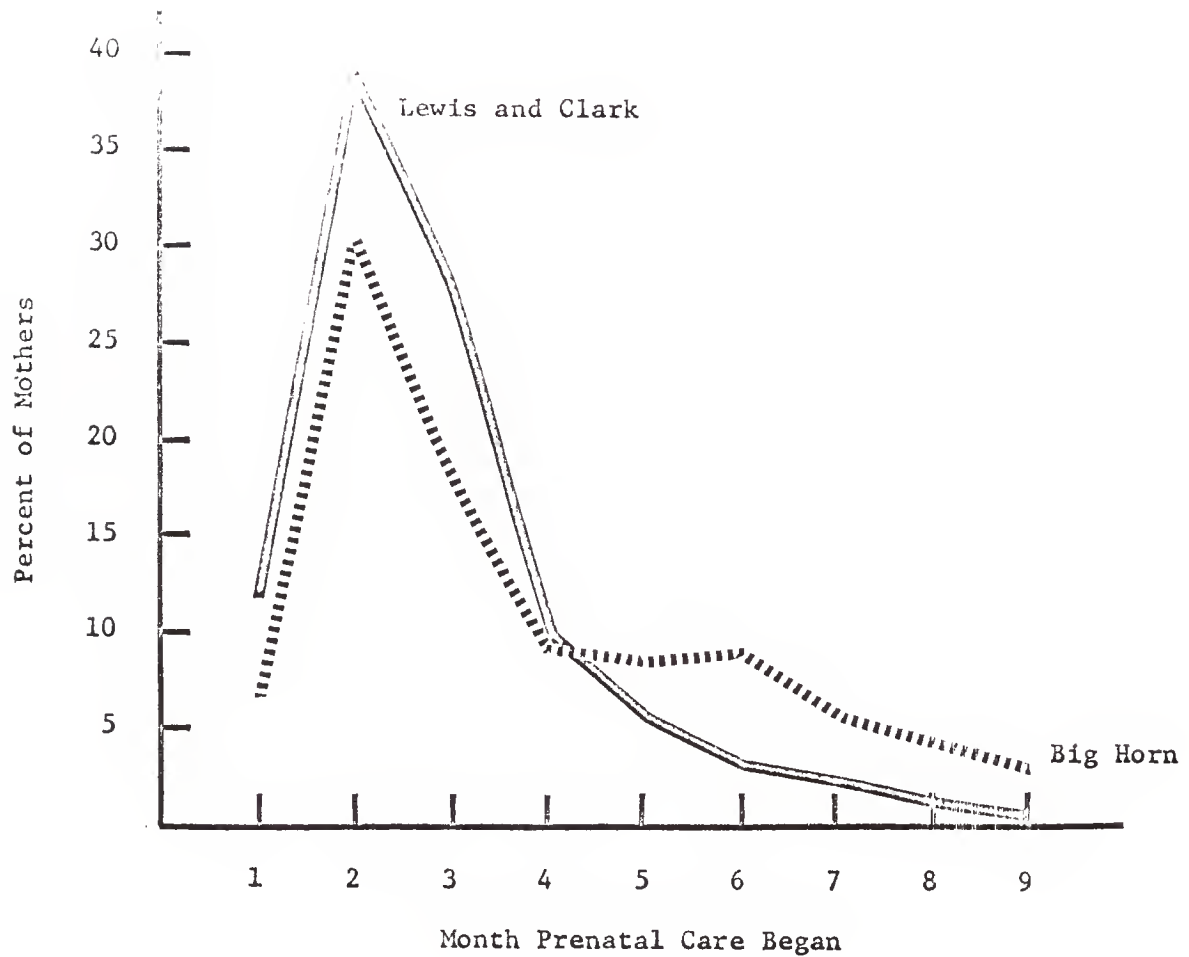
PERCENT OF LIVE BIRTHS BY MONTH PRENATAL CARE BEGAN:

Gallatin and Glacier Counties, 1968



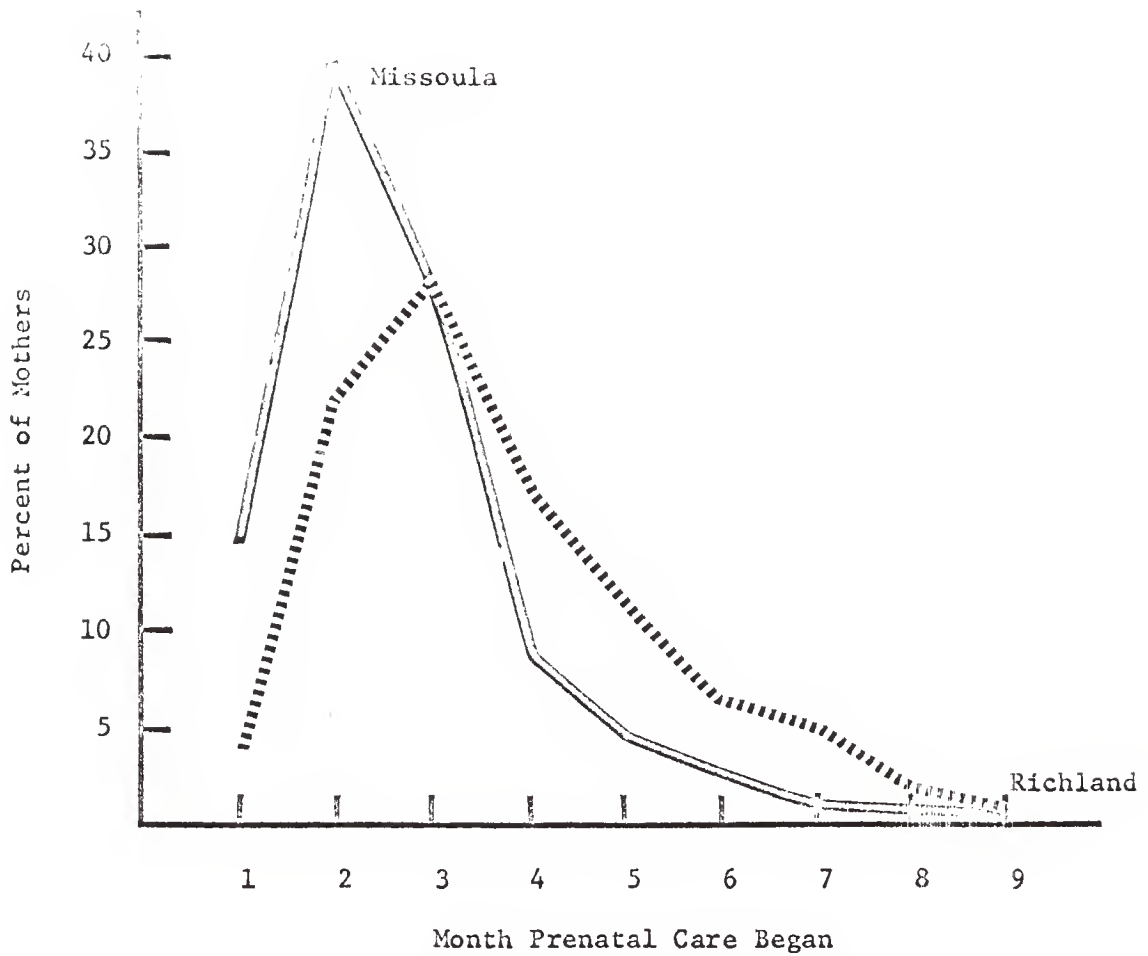
PERCENT OF LIVE BIRTHS BY MONTH PRENATAL CARE BEGAN:

Big Horn and Lewis and Clark Counties, 1968



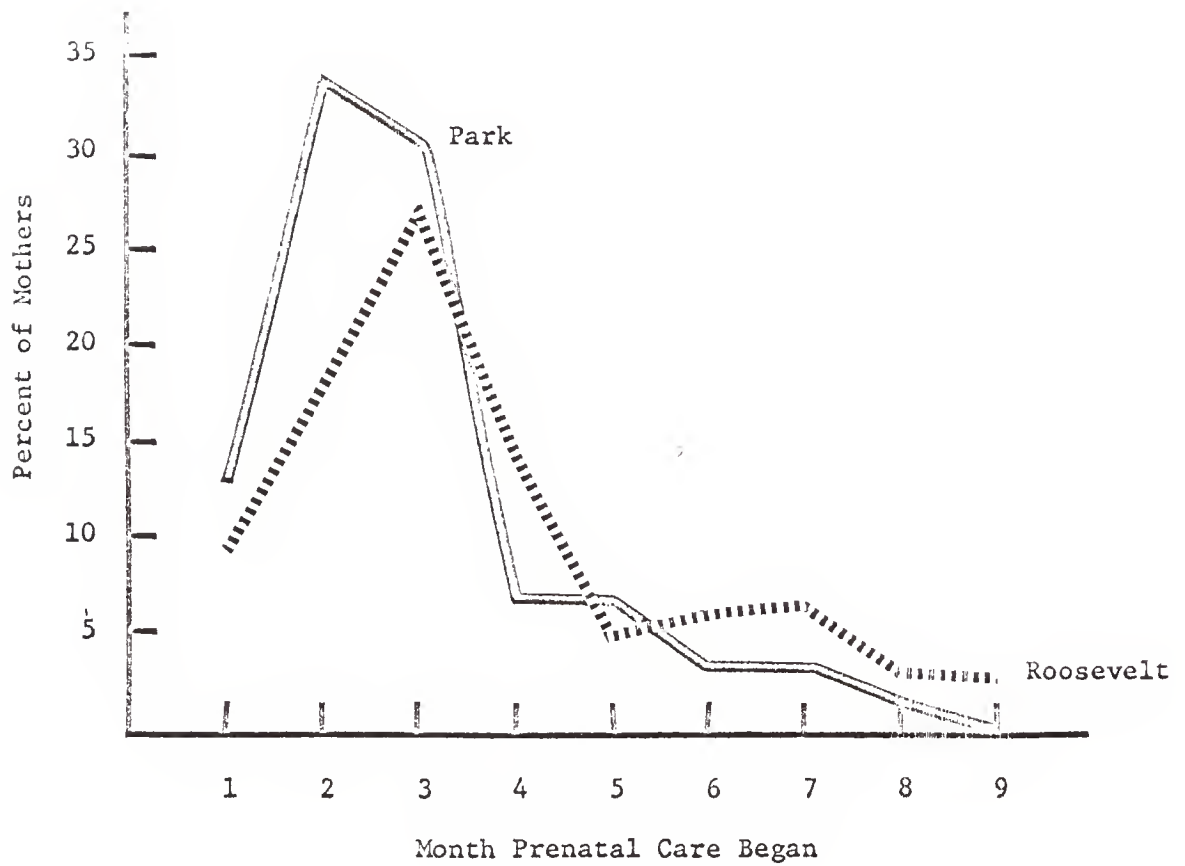
PERCENT OF LIVE BIRTHS BY MONTH PRENATAL CARE BEGAN:

Missoula and Richland Counties, 1968



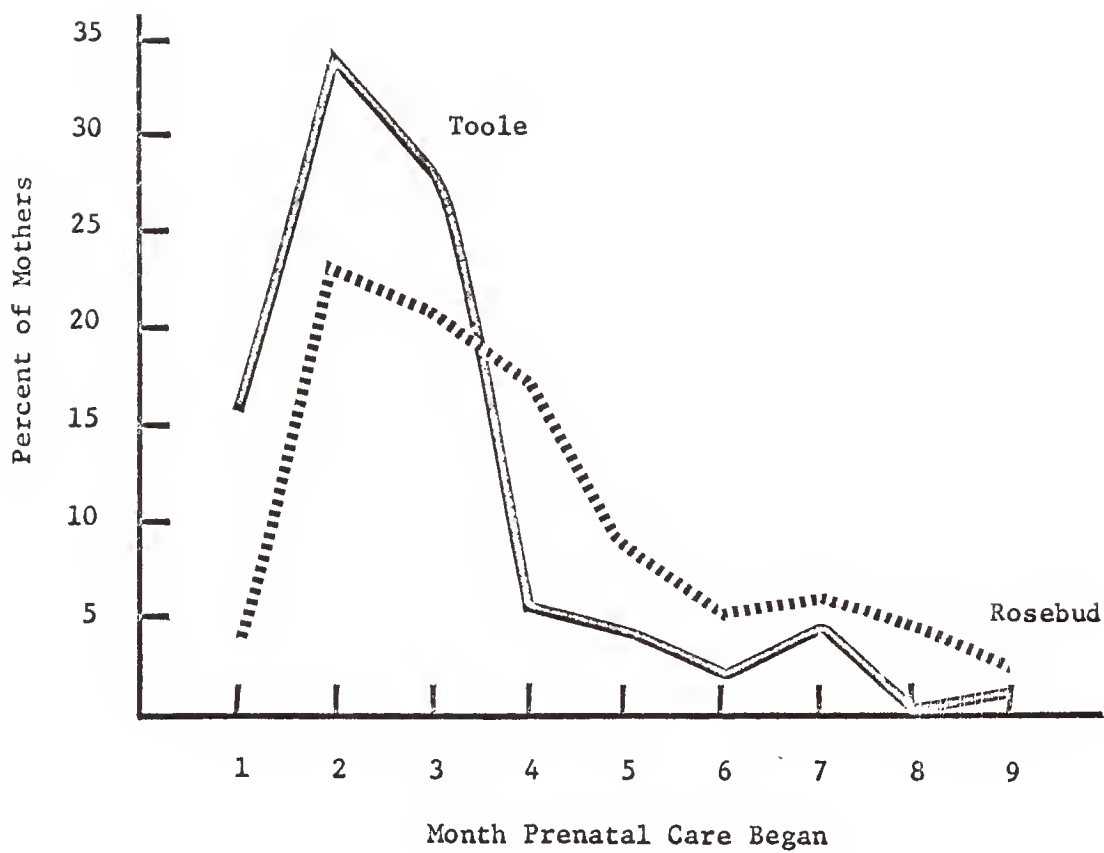
PERCENT OF LIVE BIRTHS BY MONTH PRENATAL CARE BEGAN:

Roosevelt and Park Counties, 1968

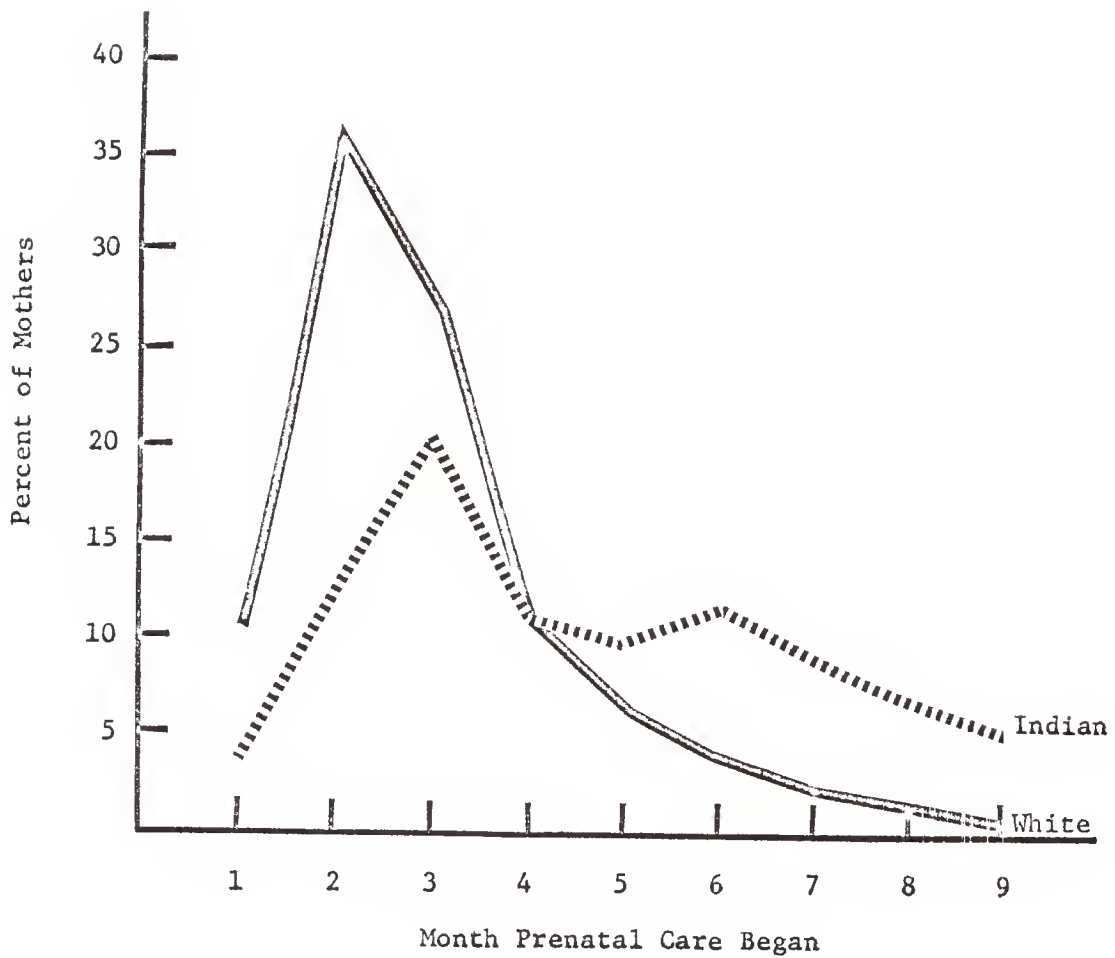


PERCENT OF LIVE BIRTHS BY MONTH PRENATAL CARE BEGAN:

Rosebud and Toole Counties, 1968



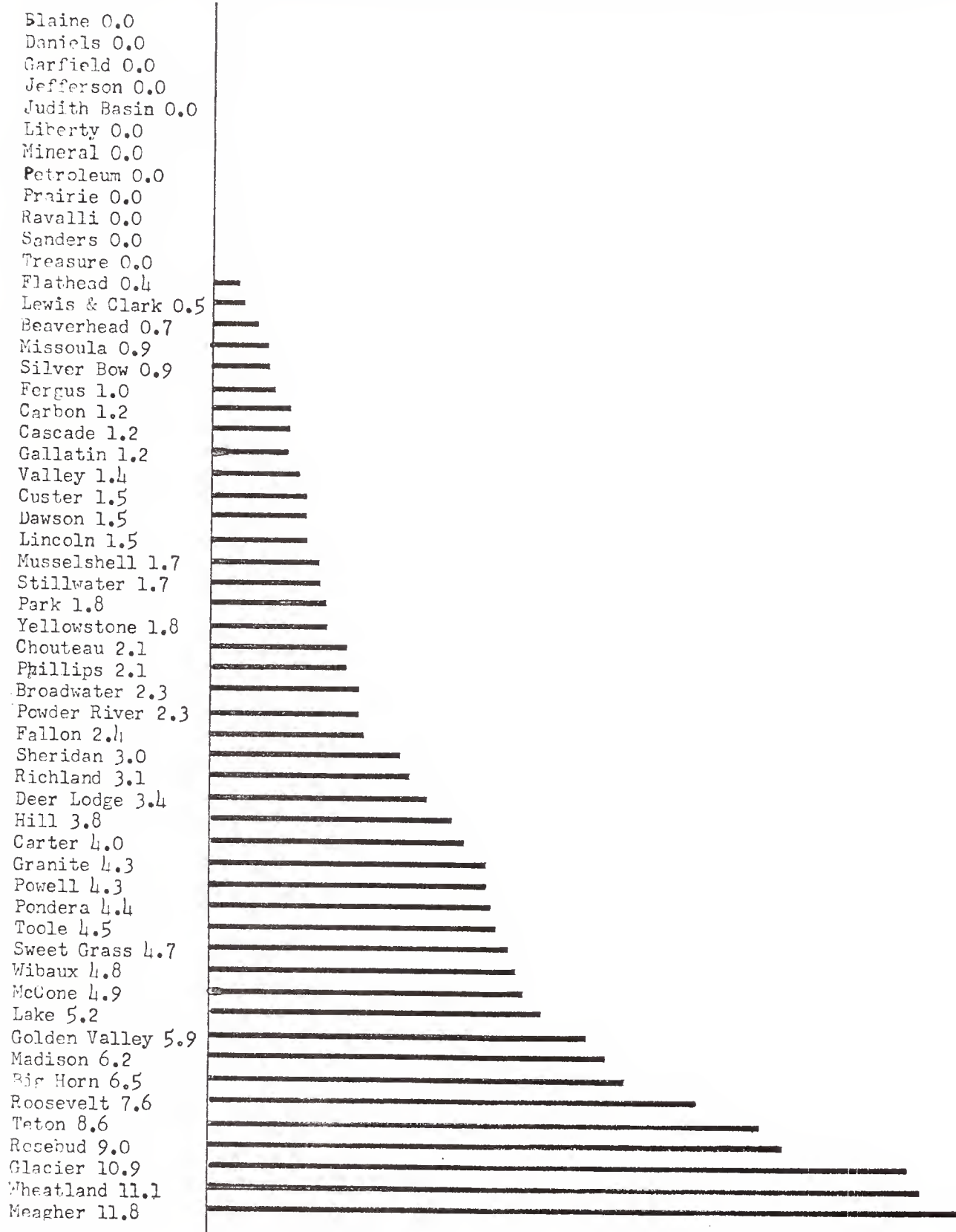
MONTH PRENATAL CARE BEGAN BY RACE OF MOTHER:
Montana, 1968
(Montana residents delivered in Montana)



MONTH PRENATAL CARE BEGAN BY RACE OF MOTHER
Montana, 1968
(Montana residents who delivered in Montana)

Month Prenatal Care Began	Total		White		Indian		Other and Not Stated	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	11,733	100.0	10,835	100.0	816	100.0	82	100.0
1	1,162	9.9	1,128	10.4	30	3.7	4	4.9
2	3,994	34.0	3,871	35.7	101	12.4	22	26.8
3	3,163	27.0	2,971	27.4	166	20.3	26	31.7
4	1,310	11.2	1,208	11.1	90	11.0	12	14.6
5	792	6.8	705	6.5	79	9.7	8	9.8
6	505	4.3	406	3.7	94	11.5	5	6.1
7	295	2.5	223	2.1	72	8.8	-	0.0
8	179	1.5	123	1.1	55	6.7	1	1.2
9	83	0.7	41	0.4	42	5.1	-	0.0
Not Stated	250	2.1	159	1.5	87	10.7	4	4.9

PERCENT OF CERTIFICATES FILED WITH MONTH PRENATAL CARE BEGAN NOT STATED: Montana Counties, 1968
(Mothers who delivered in Montana and were residents of Montana)



$$\text{COST} = \text{DIRECTLY VARYING} + \text{UNITARY FIRM}$$
$$\text{COST} = \text{DIRECT COST VARIATION} + \text{UNIT COST}$$

LIVE BIRTHS - MONTANA RESIDENTS - 1967

COUNTIES

Item 25d

Congenital Malformations

	Total	1	2	3	4	5	6	7	8	9	11	
Beaverhead	3	-	1	-	1	1	-	-	-	-	-	
Big Horn	7	1	-	-	-	-	3	1	-	-	2	
Blaine	1	-	-	-	-	-	-	-	-	-	1	
Broadwater	1	-	-	-	-	-	-	-	-	-	1	
Carbon	2	-	1	-	-	-	-	-	-	-	1	
Carter	-	-	-	-	-	-	-	-	-	-	-	
Cascade	15	4	1	-	1	1	2	1	-	-	5	
Chouteau	3	-	-	-	-	-	-	-	-	-	3	
Custer	2	-	-	-	-	-	-	-	-	-	2	
Daniels	1	-	-	-	-	-	-	1	-	-	-	
Dawson	-	-	-	-	-	-	-	-	-	-	-	
Deer Lodge	-	-	-	-	-	-	-	-	-	-	-	
Fallon	-	-	-	-	-	-	-	-	-	-	-	
Fergus	1	-	-	-	-	-	-	-	1	-	-	
Flathead	4	-	1	-	-	1	-	-	-	-	2	
Gallatin	5	-	-	1	-	-	-	-	-	-	4	
Garfield	-	-	-	-	-	-	-	-	-	-	-	
Glacier	5	2	-	1	-	-	-	-	-	-	2	
Golden Valley	-	-	-	-	-	-	-	-	-	-	-	
Granite	1	-	-	-	-	-	-	-	1	-	-	
Hill	6	-	-	1	-	-	-	1	-	-	4	
Jefferson	1	-	-	-	-	-	-	-	-	-	1	
Judith Basin	-	-	-	-	-	-	-	-	-	-	-	
Lake	4	-	-	1	-	-	1	-	-	-	2	
Lewis & Clark	7	1	-	-	-	-	1	2	-	-	3	
Liberty	-	-	-	-	-	-	-	-	-	-	-	
Lincoln	6	-	-	-	-	2	-	-	1	-	3	
McCone	-	-	-	-	-	-	-	-	-	-	-	
Madison	3	-	-	1	1	-	-	-	-	-	1	
Meagher	1	-	-	-	-	-	1	-	-	-	-	
Mineral	-	-	-	-	-	-	-	-	-	-	-	
Missoula	9	1	1	-	-	1	1	2	-	-	3	
Musselshell	3	1	-	-	-	-	2	-	-	-	-	
Park	4	-	1	-	-	-	-	1	-	-	2	
Petroleum	-	-	-	-	-	-	-	-	-	-	-	
Phillips	1	-	-	1	-	-	-	-	-	-	-	
Pondera	-	-	-	-	-	-	-	-	-	-	-	
Powder River	1	1	-	-	-	-	-	-	-	-	-	
Powell	1	-	-	-	-	-	-	-	-	-	1	
Prairie	-	-	-	-	-	-	-	-	-	-	-	
Ravalli	5	1	-	-	1	-	-	1	-	-	2	
Richland	4	1	-	1	-	-	1	-	-	-	1	
Roosevelt	3	-	-	1	-	1	-	-	1	-	-	
Rosebud	1	-	-	-	-	-	1	-	-	-	-	
Sanders	1	1	-	-	-	-	-	-	-	-	-	
Sheridan	3	-	-	-	-	-	-	1	-	-	2	
Silver Bow	9	2	-	-	1	1	2	2	1	-	-	
Stillwater	-	-	-	-	-	-	-	-	-	-	-	
Sweet Grass	-	-	-	-	-	-	-	-	-	-	-	
Teton	1	-	-	-	-	-	-	-	-	-	1	
Toole	2	-	-	-	-	-	1	1	-	-	-	
Treasure	-	-	-	-	-	-	-	-	-	-	-	
Valley	5	-	-	-	-	-	2	-	1	1	1	
Wheatland	-	-	-	-	-	-	-	-	-	-	-	
Wibaux	-	-	-	-	-	-	-	-	-	-	-	
Yellowstone	13	2	1	4	1	-	-	-	-	-	5	
TOTAL	145	18	7	12	6	8	18	14	6	1	55	

LIVE BIRTHS - MONTANA RESIDENTS - 1968

Congenital Malformations

COUNTIES Item 25

	Total	1	2	3	4	5	6	7	8	9	11	
Beaverhead	1	-	-	-	-	-	-	1	-	-	-	
Big Horn	4	-	-	-	-	-	-	-	-	-	4	
Blaine	2	-	-	-	-	-	1	1	-	-	-	
Broadwater	-	-	-	-	-	-	-	-	-	-	-	
Carbon	2	1	-	-	-	-	-	-	1	-	-	
Carter	-	-	-	-	-	-	-	-	-	-	-	
Cascade	18	3	2	2	1	1	2	2	-	-	5	
Chouteau	1	-	-	-	-	-	-	1	-	-	-	
Custer	2	-	-	-	-	-	-	-	-	-	2	
Daniels	-	-	-	-	-	-	-	-	-	-	-	
Dawson	1	-	-	1	-	-	-	-	-	-	-	
Deer Lodge	3	1	-	-	-	-	1	-	-	-	1	
Fallon	1	-	-	-	1	-	-	-	-	-	-	
Fergus	3	1	-	-	-	-	-	-	-	-	2	
Flathead	17	1	2	2	1	-	1	3	-	1	6	
Gallatin	5	2	-	1	-	-	1	-	-	-	1	
Garfield	1	-	-	-	-	-	-	-	-	-	1	
Glacier	2	-	-	1	-	-	-	-	1	-	-	
Golden Valley	-	-	-	-	-	-	-	-	-	-	-	
Granite	1	1	-	-	-	-	-	-	-	-	-	
Hill	6	-	-	1	2	-	-	1	1	-	1	
Jefferson	1	-	-	-	-	-	-	1	-	-	-	
Judith Basin	-	-	-	-	-	-	-	-	-	-	-	
Lake	2	-	-	-	1	-	-	-	-	-	1	
Lewis & Clark	8	3	-	1	1	-	1	2	-	-	-	
Liberty	2	-	-	-	-	-	-	2	-	-	-	
Lincoln	6	-	2	-	-	-	1	-	-	-	3	
McCone	-	-	-	-	-	-	-	-	-	-	-	
Madison	2	-	-	-	-	-	-	1	-	-	1	
Meagher	1	-	-	-	-	-	-	-	-	-	1	
Mineral	2	-	-	1	-	1	-	-	-	-	-	
Missoula	9	2	-	-	-	2	2	-	-	2	1	
Musselshell	-	-	-	-	-	-	-	-	-	-	-	
Park	3	1	-	-	-	-	-	-	-	-	2	
Petroleum	-	-	-	-	-	-	-	-	-	-	-	
Phillips	1	-	-	-	-	1	-	-	-	-	-	
Pandora	3	-	-	-	1	-	-	1	-	-	1	
Powder River	1	-	-	-	-	-	1	-	-	-	-	
Powell	-	-	-	-	-	-	-	-	-	-	-	
Prairie	-	-	-	-	-	-	-	-	-	-	-	
Ravalli	2	-	-	-	-	-	-	-	-	-	2	
Richland	3	-	-	-	1	-	-	-	-	-	2	
Roosevelt	3	-	-	-	1	-	1	-	-	-	1	
Rosebud	2	-	-	-	-	-	-	-	-	-	2	
Sanders	-	-	-	-	-	-	-	-	-	-	-	
Sheridan	-	-	-	-	-	-	-	-	-	-	-	
Silver Bow	10	2	-	3	1	1	1	-	-	1	1	
Stillwater	-	-	-	-	-	-	-	-	-	-	-	
Sweet Grass	-	-	-	-	-	-	-	-	-	-	-	
Teton	-	-	-	-	-	-	-	-	-	-	-	
Toole	-	-	-	-	-	-	-	-	-	-	-	
Treasure	-	-	-	-	-	-	-	-	-	-	-	
Valley	3	-	-	1	-	1	-	-	-	-	1	
Wheatland	-	-	-	-	-	-	-	-	-	-	-	
Wibaux	-	-	-	-	-	-	-	-	-	-	-	
Yellowstone	14	2	1	2	-	1	2	-	2	1	3	
TOTAL	148	20	7	16	11	8	15	16	5	5	45	

See Back for Codes

LIVE BIRTHS - MONTANA RESIDENTS - 1968
Operations

COUNTIES Item 27

	Total	1	2	3	4	5	6	7	8	9	11	
Beaverhead	16	5	-	-	-	9	2	-	-	-	-	
Big Horn	31	7	-	-	1	20	2	-	1	-	-	
Blaine	13	4	-	-	-	6	1	-	2	-	-	
Broadwater	7	1	-	-	-	2	1	-	1	2	-	
Carban	14	3	-	-	1	10	-	-	-	-	-	
Carter	2	-	-	-	-	-	-	-	2	-	-	
Cascade	194	49	-	-	1	69	3	3	68	1	-	
Chouteau	6	3	-	-	-	-	-	-	3	-	-	
Custer	22	9	-	-	-	10	1	-	2	-	-	
Daniels	2	-	-	-	-	2	-	-	-	-	-	
Dawson	37	8	2	-	-	9	-	1	17	-	-	
Deer Lodge	35	6	-	-	-	6	-	-	23	-	-	
Fallon	14	2	-	-	-	2	-	-	10	-	-	
Fergus	16	9	-	-	1	3	-	-	2	1	-	
Flathead	154	26	2	-	2	97	2	3	16	6	-	
Gallatin	220	15	2	1	11	123	1	-	41	25	1	
Garfield	9	3	-	-	-	6	-	-	-	-	-	
Glacier	11	4	-	-	-	2	-	1	4	-	-	
Golden Valley	7	3	-	-	-	4	-	-	-	-	-	
Granite	10	3	-	-	1	2	3	-	1	-	-	
Hill	36	13	-	-	-	5	2	-	12	3	1	
Jefferson	10	3	-	-	-	5	-	-	2	-	-	
Judith Basin	6	1	-	-	-	2	1	-	2	-	-	
Lake	35	8	2	1	1	16	-	-	3	4	-	
Lewis & Clark	119	26	-	-	1	66	9	-	16	1	-	
Liberty	16	-	1	-	-	8	-	-	7	-	-	
Lincoln	28	11	-	-	-	10	1	-	6	-	-	
McCone	5	2	-	-	-	2	-	-	1	-	-	
Madison	8	1	-	-	-	3	-	-	3	1	-	
Meagher	3	1	-	-	-	-	-	-	2	-	-	
Mineral	10	2	-	-	-	7	-	-	1	-	-	
Missoula	146	40	2	-	4	97	2	-	-	1	-	
Musselshell	17	2	-	-	-	15	-	-	-	-	-	
Park	23	8	-	-	1	6	1	-	6	1	-	
Petroleum	3	-	-	-	-	3	-	-	-	-	-	
Phillips	12	6	-	-	-	1	-	-	4	1	-	
Pondera	21	9	-	-	-	11	1	-	-	-	-	
Powder River	4	2	-	-	-	1	1	-	-	-	-	
Powell	3	1	-	-	-	2	-	-	-	-	-	
Prairie	5	1	-	-	-	2	-	-	2	-	-	
Ravalli	23	12	-	-	-	9	-	1	1	-	-	
Richland	42	3	-	-	2	34	1	2	-	-	-	
Roosevelt	20	9	-	-	1	7	3	-	-	-	-	
Rosebud	13	5	-	-	-	5	-	2	1	-	-	
Sanders	12	6	-	-	-	2	1	-	2	1	-	
Sheridan	2	2	-	-	-	-	-	-	-	-	-	
Silver Bow	88	29	-	-	1	23	-	1	32	1	1	
Stillwater	13	3	-	-	-	10	-	-	-	-	-	
Sweet Grass	5	1	-	-	1	2	1	-	-	-	-	
Teton	7	2	-	-	1	3	-	-	1	-	-	
Toole	11	5	-	-	-	4	-	-	2	-	-	
Treasure	2	-	-	-	-	2	-	-	-	-	-	
Valley	83	12	-	-	2	62	1	3	1	2	-	
Wheatland	5	2	-	-	-	2	1	-	-	-	-	
Wibaux	5	-	-	-	-	2	-	-	3	-	-	
Yellowstone	543	57	1	3	16	431	26	3	6	-	-	
TOTAL	2204	445	12	5	49	1242	68	20	309	51	3	

See Back for Codes

LIVE BIRTHS - MONTANA RESIDENTS - 1968

Prophylaxis

COUNTIES Item 28

	Total	1	2	3	4	5	0	Not Entered				
Beaverhead	142	82	57	1	-	-	2	-				
Big Horn	214	135	78	-	-	-	1	-				
Blaine	118	114	3	1	-	-	-	-				
Broadwater	43	2	8	32	-	-	1	-				
Corban	84	29	50	1	-	-	4	-				
Carter	25	4	21	-	-	-	-	-				
Cascade	1618	825	777	9	-	-	7	-				
Chouteau	97	73	24	-	-	-	-	-				
Custer	203	198	4	1	-	-	-	-				
Daniels	27	7	19	-	-	-	1	-				
Dowson	203	32	170	1	-	-	-	-				
Deer Lodge	206	203	2	1	-	-	-	-				
Fallon	82	43	38	-	-	-	1	-				
Fergus	194	115	70	1	-	-	8	-				
Flothead	678	250	418	3	-	-	7	-				
Gallatin	490	93	391	4	-	-	2	-				
Garfield	31	30	1	-	-	-	-	-				
Glacier	220	81	130	1	-	-	8	-				
Golden Valley	17	17	-	-	-	-	-	-				
Granite	46	16	29	1	-	-	-	-				
Hill	287	267	18	-	-	-	2	-				
Jefferson	71	29	25	16	-	-	1	-				
Judith Basin	38	21	17	-	-	-	-	-				
Lake	212	58	145	-	-	-	9	-				
Lewis & Clark	551	62	207	282	-	-	-	-				
Liberty	37	6	30	-	-	-	1	-				
Lincoln	323	130	188	1	-	-	4	-				
McCone	41	16	23	2	-	-	-	-				
Madison	64	11	51	-	-	-	2	-				
Meagher	34	-	22	7	-	-	5	-				
Mineral	49	23	24	-	-	-	2	-				
Missoula	1063	28	1025	2	-	-	7	1				
Musselshell	59	56	3	-	-	-	-	-				
Park	163	4	156	1	-	-	2	-				
Petroleum	9	8	1	-	-	-	-	-				
Phillips	97	31	65	1	-	-	-	-				
Pondera	113	4	105	1	-	-	3	-				
Powder River	44	39	5	-	-	-	-	-				
Powell	94	77	10	6	-	-	1	-				
Prairie	20	18	2	-	-	-	-	-				
Ravalli	196	168	27	-	-	-	1	-				
Richland	159	93	65	1	-	-	-	-				
Roosevelt	224	190	32	-	-	-	2	-				
Rosebud	134	114	17	1	-	-	2	-				
Sanders	62	3	59	-	-	-	-	-				
Sheridan	67	65	1	-	-	-	1	-				
Silver Bow	760	738	16	5	-	-	1	-				
Stillwater	60	21	36	1	-	-	2	-				
Sweet Grass	43	36	7	-	-	-	-	-				
Teton	70	37	26	-	-	-	7	-				
Toole	89	67	17	1	-	-	4	-				
Treasure	16	10	5	-	-	-	1	-				
Volley	289	120	157	1	-	-	11	-				
Wheatland	45	41	1	1	-	-	2	-				
Wibaux	21	3	18	-	-	-	-	-				
Yellowstone	1391	1356	21	4	-	1	9	-				
TOTAL	11733	6299	4917	391	-	1	124	1				

See Back for Codes

LIVE BIRTHS MONTANA RESIDENTS - 1968
Complications not related to pregnancy

COUNTIES Item 24

	TOTAL	0	1	2	3	4	5	6	7			
Beaverhead	142	138	1	-	-	-	-	2	1			
Eig Horn	214	190	7	-	1	-	1	7	8			
Blaine	118	99	4	-	1	1	1	5	7			
Broadwater	43	42	1	-	-	-	-	-	-			
Carbon	84	83	-	-	-	-	-	1	-			
Carter	25	25	-	-	-	-	-	-	-			
Cascade	1618	1591	-	2	-	1	1	4	19			
Chouteau	97	89	8	-	-	-	-	-	-			
Custer	203	197	2	-	-	-	-	4	-			
Daniels	27	27	-	-	-	-	-	-	-			
Dawson	203	198	-	-	1	1	1	1	1			
Deer Lodge	206	203	2	-	1	-	-	-	-			
Fallon	82	82	-	-	-	-	-	-	-			
Fergus	194	190	1	1	-	-	-	2	-			
Flathead	678	665	2	3	-	2	1	4	1			
Gallatin	490	476	1	2	-	1	-	7	3			
Garfield	31	31	-	-	-	-	-	-	-			
Glacier	220	216	1	1	-	-	-	2	-			
Golden Valley	17	15	-	-	1	-	-	-	1			
Granite	46	45	-	1	-	-	-	-	-			
Hill	287	277	3	2	-	-	1	2	2			
Jefferson	71	69	-	1	-	-	-	1	-			
Judith Basin	38	38	-	-	-	-	-	-	-			
Lake	212	208	1	-	-	-	-	2	1			
Lewis & Clark	551	537	4	2	1	-	1	6	-			
Liberty	37	36	-	-	-	-	-	1	-			
Lincoln	323	320	-	1	-	1	-	1	-			
McCone	41	40	-	-	1	-	-	-	-			
Madison	64	62	1	-	-	-	-	1	-			
Meagher	34	32	-	-	-	-	-	2	-			
Mineral	49	48	-	-	-	-	-	1	-			
Missoula	1063	1050	-	1	-	1	-	7	4			
Musselshell	59	58	-	-	-	-	-	-	1			
Park	163	161	-	-	-	-	-	2	-			
Petroleum	9	9	-	-	-	-	-	-	-			
Phillips	97	96	-	-	-	-	-	1	-			
Pondera	113	109	-	-	1	1	-	1	1			
Powder River	44	44	-	-	-	-	-	-	-			
Powell	94	92	-	1	-	-	-	-	1			
Prairie	20	20	-	-	-	-	-	-	-			
Ravalli	196	196	-	-	-	-	-	-	-			
Richland	159	158	-	-	-	-	-	1	-			
Roosevelt	224	216	1	-	-	-	2	3	2			
Rosebud	134	126	2	2	-	1	1	1	1			
Sanders	62	61	-	-	-	-	-	1	-			
Sheridan	67	67	-	-	-	-	-	-	-			
Silver Bow	760	739	8	-	1	2	2	7	1			
Stillwater	60	60	-	-	-	-	-	-	-			
Sweet Grass	43	43	-	-	-	-	-	-	-			
Teton	70	66	-	1	-	-	-	3	-			
Toole	89	88	-	-	-	-	-	-	1			
Treasure	16	16	-	-	-	-	-	-	-			
Valley	289	276	-	2	-	-	-	3	8			
Wheatland	45	44	1	-	-	-	-	-	-			
Wibaux	21	20	-	-	-	-	-	1	-			
Yellowstone	1391	1358	2	6	3	3	-	11	8			
TOTAL	11733	11442	53	29	12	15	12	98	72			

See Back for Codes

LIVE BIRTHS - MONTANA RESIDENTS - 1968
Number of Prenatal Visits

COUNTIES

	TOTAL	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15-19	20-24	25-29	30+	Not Entered
Beaverhead	142	-	-	3	1	4	7	6	10	9	13	23	3	27	6	13	11	3	-	-	2
Big Horn	214	11	7	8	6	13	18	14	17	22	12	30	11	18	8	2	7	-	1	1	8
Blaine	118	1	2	6	7	15	7	7	10	16	9	14	11	6	2	1	4	-	-	-	-
Broadwater	43	-	-	2	1	2	5	11	4	6	4	6	3	1	2	2	3	1	-	-	1
Carbon	84	-	1	3	-	3	3	6	2	10	12	10	11	6	4	3	9	1	-	-	-
Carter	25	-	-	-	1	-	2	1	4	4	1	6	2	-	1	-	2	-	-	-	1
Cascade	1618	21	11	13	27	48	55	90	118	148	127	270	162	205	118	75	119	7	3	-	1
Chouteau	97	2	1	-	2	5	7	6	6	11	6	11	10	7	5	6	9	1	-	-	2
Custer	203	2	3	3	2	7	7	14	8	12	15	15	17	17	13	6	15	1	-	-	46
Daniels	27	-	-	1	-	-	1	3	2	3	2	1	3	4	1	-	4	1	-	-	1
Dawson	203	2	-	3	3	9	10	4	20	21	31	34	24	24	6	5	5	-	-	1	1
Deer Lodge	206	5	3	2	4	7	14	14	14	25	25	34	8	21	4	6	12	3	-	-	5
Fallon	82	-	1	1	1	2	6	6	4	6	8	15	1	5	2	-	6	7	3	-	9
Fergus	194	2	7	6	9	6	6	8	15	18	22	33	12	29	4	9	7	-	-	-	1
Flarehead	678	2	9	10	14	24	32	36	55	34	34	90	51	150	22	67	51	11	4	3	3
Gallatin	490	2	1	4	4	5	14	18	20	37	42	67	48	75	37	32	66	9	1	-	8
Garfield	31	-	-	3	1	3	2	2	4	7	1	1	-	1	-	-	1	-	-	-	5
Glacier	220	14	18	17	14	15	15	18	14	16	10	16	4	15	2	6	11	2	-	-	13
Golden Valley	17	-	1	1	-	-	-	-	1	2	-	5	-	3	2	1	-	1	-	-	1
Granite	46	-	1	1	2	-	2	6	4	4	3	6	5	3	-	4	3	-	-	-	2
Hill	287	7	9	5	10	8	17	13	18	26	35	46	28	33	13	6	9	1	-	-	3
Jefferson	71	1	1	2	3	4	6	4	4	7	1	9	3	8	2	4	5	-	-	1	1
Judith Basin	38	-	2	-	-	1	2	3	2	1	1	10	8	4	-	1	1	-	-	-	-
Lake	212	6	8	6	7	10	15	19	12	12	15	36	4	21	7	2	15	4	-	1	12
Lewis & Clark	551	1	3	5	10	17	16	22	19	45	39	81	39	110	70	26	37	5	2	2	2
Liberty	37	-	-	-	1	3	1	2	4	2	5	3	1	7	1	3	3	1	-	-	-
Lincoln	323	3	4	3	8	10	11	14	21	27	33	54	23	44	19	17	25	1	-	-	6
McCone	41	1	-	-	-	1	1	1	1	2	2	10	1	3	-	3	1	2	-	-	12
Madison	64	-	-	-	1	1	3	4	7	4	4	12	5	10	-	1	6	-	-	-	6
Meagher	34	3	-	-	-	1	2	4	4	2	2	1	1	6	3	3	1	-	-	-	1
Mineral	49	-	1	-	4	3	7	4	4	1	5	4	7	5	-	4	1	-	-	-	1
Missoula	1063	9	3	4	8	21	17	31	36	66	73	172	71	330	37	78	84	13	2	-	8
Musselshell	59	-	2	2	3	2	2	2	1	7	10	7	5	9	5	2	1	-	-	-	1
Park	163	2	-	1	3	8	5	9	9	21	18	28	16	20	9	6	4	1	-	-	3
Petroleum	9	-	-	1	-	-	1	1	1	-	-	1	1	2	-	1	1	-	-	-	-
Phillips	97	2	2	1	6	4	7	13	9	6	14	10	5	8	-	1	7	-	-	-	2
Pondera	113	2	-	1	7	7	6	10	16	10	7	13	10	12	2	1	3	2	-	-	5
Powder River	44	1	-	-	2	3	4	2	3	5	5	3	2	1	2	1	1	-	-	-	9
Powell	94	1	-	1	3	6	4	5	4	7	9	15	6	12	8	2	4	1	-	-	6
Prairie	20	-	-	-	-	-	-	3	3	1	2	2	2	1	1	1	-	-	-	-	4
Ravalli	196	-	3	2	5	7	10	7	13	21	17	41	9	21	8	12	13	3	2	2	-
Richland	159	3	-	6	3	4	14	6	14	25	20	22	17	10	5	3	7	-	-	-	-
Roosevelt	224	12	15	4	9	12	10	15	17	21	18	13	5	10	-	2	5	2	-	-	54
Rosebud	134	7	6	5	10	5	9	10	15	16	6	11	6	5	4	2	2	-	-	-	13
Sanders	62	-	1	1	1	2	5	1	7	7	6	11	6	5	4	4	2	-	-	-	-
Sheridan	67	1	1	2	2	2	5	6	7	6	8	14	5	4	2	-	1	-	-	-	1
Silver Bow	760	4	2	19	29	27	50	47	40	79	56	143	56	84	30	29	54	4	1	-	8
Stillwater	60	1	2	1	-	1	5	5	4	6	5	6	5	11	4	2	2	-	-	-	-
Sweet Grass	43	-	-	-	1	-	4	5	4	7	6	2	5	5	3	1	1	-	-	-	-
Teton	70	3	2	-	5	4	5	6	5	8	7	6	1	3	2	1	5	-	-	-	3
Toole	89	3	2	1	2	10	3	6	5	8	7	13	3	3	5	8	6	1	-	-	2
Treasure	16	-	-	-	-	1	2	2	2	5	2	1	-	-	-	-	1	-	-	-	-
Valley	289	3	2	2	8	3	11	14	24	23	34	46	33	32	17	13	20	1	-	-	3
Wheatland	45	1	-	1	-	-	-	4	4	3	2	4	8	1	6	2	-	5	1	2	4
Wibaux	21	1	-	-	-	-	-	4	3	3	2	2	-	3	-	-	1	1	-	-	1
Yellowstone	1391	16	17	15	17	40	47	61	80	121	106	234	154	293	61	63	40	6	4	-	16
TOTAL	11733	158	156	176	254	386	507	622	737	1047	969	1780	926	1761	568	539	716	95	26	13	297

LIVE BIRTHS BY BIRTH WEIGHT GROUP - Montana Residents
Montana Counties, 1968

COUNTIES	TOTAL	Premature		Mature		Weight not given	
		5 lbs. 8 oz. & under		over 5 lbs. 8 oz.		not given	
		Number	Percent	Number	Percent	Number	Percent
Beaverhead	142	4	2.8	138	97.2	-	0.0
Big Horn	214	11	5.1	201	93.9	2	0.9
Blaine	118	5	4.2	112	94.9	1	0.8
Broadwater	43	3	7.0	40	93.0	-	0.0
Carbon	84	4	4.8	77	91.7	3	3.6
Carter	25	1	4.0	24	96.0	-	0.0
Coscode	1618	124	7.7	1494	92.3	-	0.0
Chouteau	97	10	10.3	87	89.7	-	0.0
Custer	203	19	9.4	184	90.6	-	0.0
Daniels	27	2	7.4	25	92.6	-	0.0
Dowson	203	15	7.4	188	92.6	-	0.0
Deer Lodge	206	16	7.8	190	92.2	-	0.0
Fallon	82	5	6.1	77	93.9	-	0.0
Fergus	194	13	6.7	181	93.3	-	0.0
Flathead	678	45	6.6	632	93.2	1	0.1
Gallatin	490	41	8.4	449	91.6	-	0.0
Garfield	31	3	9.7	28	90.3	-	0.0
Glacier	220	17	7.7	199	90.5	4	1.8
Golden Valley	17	1	5.9	16	94.1	-	0.0
Gronite	46	3	6.5	43	93.5	-	0.0
Hill	287	13	4.5	274	95.5	-	0.0
Jefferson	71	6	8.5	65	91.5	-	0.0
Judith Basin	38	4	10.5	34	89.5	-	0.0
Lake	212	9	4.2	202	95.3	1	0.5
Lewis & Clark	551	36	6.5	515	93.5	-	0.0
Liberty	37	1	2.7	35	94.6	1	2.7
Lincoln	323	19	5.9	303	93.8	1	0.3
McCone	41	1	2.4	40	97.6	-	0.0
Madison	64	4	6.2	60	93.8	-	0.0
Meagher	34	3	8.8	31	91.2	-	0.0
Mineral	49	4	8.2	45	91.8	-	0.0
Missoula	1063	78	7.3	984	92.6	1	0.1
Musselshell	59	5	8.5	54	91.5	-	0.0
Park	163	10	6.1	153	93.9	-	0.0
Petroleum	9	1	11.1	8	88.9	-	0.0
Phillips	97	6	6.2	91	93.8	-	0.0
Pondera	113	10	8.8	103	91.2	-	0.0
Powder River	44	2	4.5	42	95.5	-	0.0
Powell	94	7	7.4	86	91.5	1	1.1
Prairie	20	2	10.0	18	90.0	-	0.0
Ravalli	196	13	6.6	183	93.4	-	0.0
Richland	159	14	8.8	145	91.2	-	0.0
Roosevelt	224	22	9.8	202	90.2	-	0.0
Rosebud	134	9	6.7	123	91.8	2	1.5
Sanders	62	5	8.1	56	90.3	1	1.6
Sheridan	67	2	3.0	65	97.0	-	0.0
Silver Bow	760	73	9.6	687	90.4	-	0.0
Stillwater	60	4	6.7	55	91.7	1	1.7
Sweet Grass	43	2	4.7	41	95.3	-	0.0
Teton	70	8	11.4	58	82.9	4	5.7
Toole	89	6	6.7	83	93.3	-	0.0
Treasure	16	1	6.2	15	93.8	-	0.0
Valley	289	19	6.6	270	93.4	-	0.0
Wheatland	45	6	13.3	38	84.4	1	2.2
Wibaux	21	2	9.5	19	90.5	-	0.0
Yellowstone	1391	126	9.1	1265	90.9	-	0.0
TOTAL	11733	875	7.5	10833	92.3	25	0.2

LIVE BIRTHS - MONTANA RESIDENTS - 1968
Complications of Pregnancy

Item 22

COUNTIES

	Total	1	2	3	4								
Beaverhead	5	2	3	-	-								
Big Horn	9	3	4	-	2								
Blaine	3	1	1	1	-								
Broadwater	2	-	2	-	-								
Carbon	3	-	3	-	-								
Carter	-	-	-	-	-								
Cascade	47	18	28	1	-								
Chouteau	1	-	1	-	-	22.	Complications of Pregnancy						
Custer	9	2	4	2	1								
Daniels	1	1	-	-	-	0.	None						
Dawson	4	1	2	-	1	1.	Toxemia (hyperemesis gravidarum, severe vomiting, preclampsia, eclampsia)						
Deer Lodge	3	-	3	-	-	2.	Hemorrhage (threatened abortion, ectopic pregnancy, placenta previa, abruptio placenta, retained placenta, placenta accreta, other hemorrhage)						
Fallon	2	-	2	-	-								
Fergus	4	-	3	-	1								
Flathead	20	5	13	1	1								
Gallatin	28	8	18	-	2								
Garfield	1	-	1	-	-								
Glozier	3	2	1	-	-	3.	Erythroblastosis						
Golden Valley	1	-	1	-	-	4.	Other (hydramnios, hydatidiform mole, chorionepithelioma)						
Granite	-	-	-	-	-								
Hill	10	2	7	1	-								
Jefferson	5	2	2	1	-								
Judith Basin	2	-	2	-	-								
Loke	7	2	5	-	-								
Lewis & Clark	21	3	16	1	1								
Liberty	1	-	1	-	-								
Lincoln	6	-	4	1	1								
McCone	1	-	1	-	-								
Madison	5	1	3	-	1								
Meagher	1	-	-	-	1								
Mineral	2	-	2	-	-								
Missoula	22	11	9	-	2								
Musselshell	5	3	2	-	-								
Park	7	2	5	-	-								
Petroleum	-	-	-	-	-								
Phillips	6	1	4	-	1								
Pondera	3	1	2	-	-								
Powder River	2	1	1	-	-								
Powell	1	-	1	-	-								
Prairie	3	1	2	-	-								
Ravalli	8	6	2	-	-								
Richland	9	3	6	-	-								
Roosevelt	13	6	7	-	-								
Rosebud	8	-	6	-	2								
Sanders	1	-	1	-	-								
Sheridan	-	-	-	-	-								
Silver Bow	12	2	10	-	-								
Stillwater	4	1	3	-	-								
Sweet Grass	3	1	2	-	-								
Teton	3	2	1	-	-								
Toole	2	-	2	-	-								
Treasure	1	-	1	-	-								
Valley	13	3	7	2	1								
Wheatland	-	-	-	-	-								
Wibaux	-	-	-	-	-								
Yellowstone	36	8	26	1	1								
TOTAL	369	105	233	12	19								

COUNTIES Item 26

[illegible]

LIVE BIRTHS - MONTANA RESIDENTS - 1968
Birth Injury

COUNTIES Item 23

	Total	1	2	3	4	5							
Beaverhead	-	-	-	-	-	-							
Big Horn	2	2	-	-	-	-							
Blaine	-	-	-	-	-	-							
Broadwater	-	-	-	-	-	-							
Carbon	-	-	-	-	-	-							
Carter	-	-	-	-	-	-							
Cascade	4	-	-	-	2	2							
Chouteau	-	-	-	-	-	-							
Custer	-	-	-	-	-	-							
Daniels	1	-	-	1	-	-							
Dawson	-	-	-	-	-	-							
Deer Lodge	1	-	-	-	-	1							
Fallon	-	-	-	-	-	-							
Fergus	1	1	-	-	-	-							
Flathead	4	1	-	-	2	1							
Gallatin	1	-	-	-	-	1							
Garfield	-	-	-	-	-	-							
Glacier	-	-	-	-	-	-							
Golden Valley	-	-	-	-	-	-							
Granite	-	-	-	-	-	-							
Hill	4	1	-	-	2	1							
Jefferson	-	-	-	-	-	-							
Judith Basin	-	-	-	-	-	-							
Lake	1	-	-	-	-	1							
Lewis & Clark	3	2	-	-	-	1							
Liberty	-	-	-	-	-	-							
Lincoln	1	-	-	-	-	1							
McCone	-	-	-	-	-	-							
Madison	-	-	-	-	-	-							
Meagher	-	-	-	-	-	-							
Mineral	-	-	-	-	-	-							
Missoula	-	-	-	-	-	-							
Musselshell	-	-	-	-	-	-							
Park	-	-	-	-	-	-							
Petroleum	-	-	-	-	-	-							
Phillips	1	-	-	-	-	1							
Pondera	1	-	-	-	-	1							
Powder River	-	-	-	-	-	-							
Powell	-	-	-	-	-	-							
Prairie	-	-	-	-	-	-							
Ravalli	-	-	-	-	-	-							
Richland	-	-	-	-	-	-							
Roosevelt	1	1	-	-	-	-							
Rosebud	1	1	-	-	-	-							
Sanders	1	1	-	-	-	-							
Sheridan	-	-	-	-	-	-							
Silver Bow	-	-	-	-	-	-							
Stillwater	-	-	-	-	-	-							
Sweet Grass	-	-	-	-	-	-							
Teton	-	-	-	-	-	-							
Toole	-	-	-	-	-	-							
Treasure	-	-	-	-	-	-							
Valley	-	-	-	-	-	-							
Wheatland	-	-	-	-	-	-							
Wibaux	-	-	-	-	-	-							
Yellowstone	4	2	-	-	-	2							
TOTAL	32	12	-	1	6	13							

23. Birth Injury

0. None

1. Brain

2. Spine

3. Instrument delivery

4. Fractures and dislocations

5. Other

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